RX Series
User Manual

http://www.GCCworld.com

V.7 2014 Mar.

NOTICE

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V.7 2014 Mar.

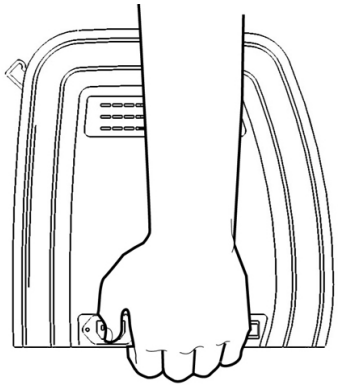
Important Information

Thank you for purchasing the ***GCC RX Series Cutting Plotter.***
Before you use the cutting plotter, please make sure that you have read the safety precautions and instructions below.

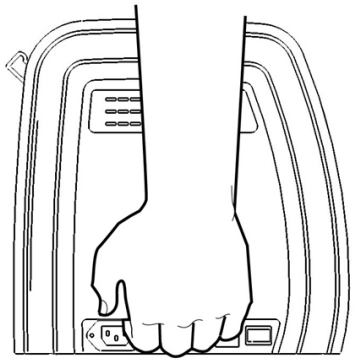
Caution

SAFETY PRECAUTIONS!

- For safety concern, please always hold the cutter firmly **<u>from the bottom</u>** while moving it. Do not move the cutter by clasping the depression area on both sides.



O (Correct)



X (Incorrect)

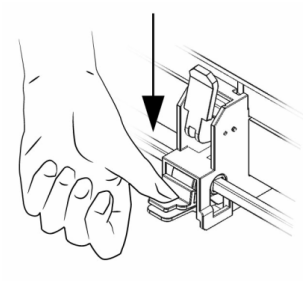
- Do not shake or drop the blade holder, a blade tip can fly out.
- During an operation, do not touch any of the moving parts of this machine (such as the carriage). Also be careful to make sure that clothing and hair do not get caught.
- Always connect the power cable to a grounded outlet.
- Always use the accessory power cable which is provided. Do not wire the power cable so that it becomes bent or caught between objects.
- Do not connect the power cable to branching outlet to which other machines are also connected, or use an extension cable. There is danger of overheating and of mis-operation of the machine.
- Keep the tools away from children where they can reach.
- Always put the pinch rollers within the white marks.

Warning

Never press the top release grip and pull the bottom release grip at the same time as the pictures shown below:

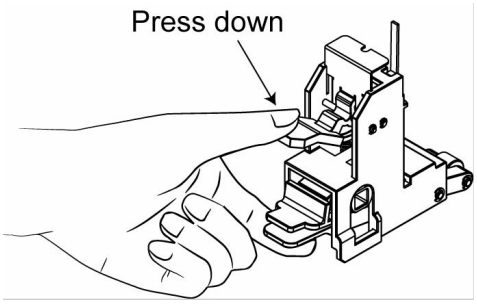
O (CORRECT)

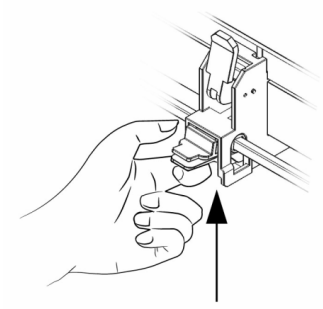
Press down



DISABLE

X (INCORRECT)





Pull up bottom to release grip

ENABLE

Note:

In case the grips clipped together due to your wrong operation, please use a pair of tweezers to pull out the stop bar when pressing down the top release grip. Keep the stop bar outside then release the grips as the right figure.

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1. General Information

1.1 Introduction

RX series cutting plotters have been designed to produce computer-generated images or perform contour cutting on sheets or rolls of vinyl media.

This manual covers the following models of RX series cutting plotters:

• RX-61	for media width: 50mm(1.97”) ~ 810mm(31.88”)
• RX -101S	for media width: 50mm(1.97”) ~ 1326mm(52.2”)
• RX -132S	for media width: 50mm(1.97”) ~ 1635mm(64.37”)
• RX -183S	for media width: 50mm(1.97”) ~ 2145mm(84.44”)

1.2 Package Items

The package of the RX series contents the items listed below, please check carefully.
If you find any item missing, please consult your local dealer for further assistance.

<table>
<tr><th>Standard Item</th><th>Quantity</th></tr>
<tr><td>1. Cutting Plotter</td><td>1</td></tr>
<tr><td>2. Stand Set (for RX-101S/132S/183S only)(Optional for RX-61)
● 2 piece of T-shape stand
● 1 piece of stand beam
● 18 pieces of M6 screws
● 1 piece of M5 L-shape hexagon screw driver
● 1 piece of Installation Guide for Stand Set</td><td>1</td></tr>
<tr><td>3. Flexible Media Support System Package
<table>
<tr><th>Items</th><th>183S/132S/101S</th><th>61</th></tr>
<tr><td>1 set of Roll Media Flange (2 pieces)</td><td>V</td><td>V</td></tr>
<tr><td>1 set of Roll Holder (2 pieces)</td><td>V</td><td>V</td></tr>
<tr><td>1 set of Roll Holder Guide Bushes (4 pieces)</td><td>V</td><td>V</td></tr>
<tr><td>1 set of Roll Holder Support (2 pieces)</td><td>V</td><td>V</td></tr>
<tr><td>1 piece of M6 L-shape hexagon screw driver</td><td>V</td><td>V</td></tr>
<tr><td>1 piece of Installation Guide for Roll Holder</td><td></td><td>V</td></tr>
<tr><td>1 piece of M5 L-shape hexagon screw driver</td><td></td><td>V</td></tr>
<tr><td>1 set of Desktop Support Brackets (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>4 pieces of Plastic Foot</td><td></td><td>V</td></tr>
<tr><td>4 pieces of M4 screws</td><td></td><td>V</td></tr>
<tr><td>12 pieces of M6 screws</td><td></td><td>V</td></tr>
<tr><td>1 piece of M4 L-shape hexagon screw driver</td><td></td><td>V</td></tr>
</table></td><td>1</td></tr>
</table>

4. Accessories ● 1 piece of User's Compact Disk ● 1 piece of AC power Cord ● 1 piece of data cable (USB cable: 3m) ● 1 set of Blade Holder Assembly (Installed in tool carriage of the cutting plotter) ● 1 piece of Blade (Installed in Blade Holder) ● 1 piece of Safe Blade ● 1 piece of Cutting Pad for Vinyl cutting ● 1 piece of Tweezers ● 1 piece of Promise Card	**1**

1.3 Product Features

The following are the main features of the RX series cutting plotters:

- Dual port (USB, serial port) connectivity
- Up to 600-gram cutting force
- Up to 60-inch/per second cutting speed
- Can work with up to 0.8mm (0.03in) thick material
- Guaranty 10-meter tracking
- User friendly, multi-language control panel
- Enhanced Automatic-Aligning System for automatic contour cutting
- Ingenious media basket (optional item)

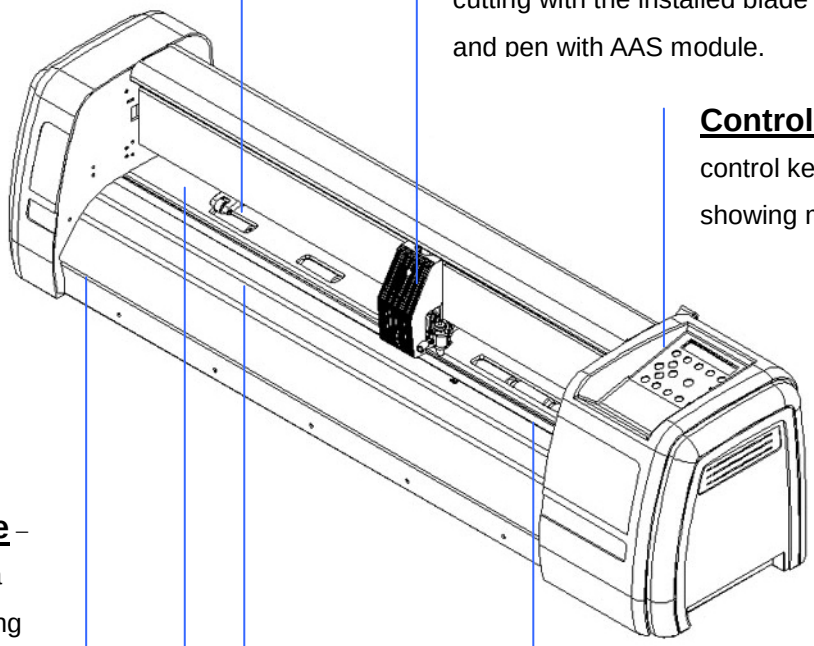
1.4 Appearance of RX Series

1.4.1 The Front View (Figure 1-1)

Grid Drums – move the media back and forth during operation.

Tool Carriage – performs the cutting with the installed blade and pen with AAS module.

Control panel – consists of 14 control keys and 1 LED and 1 LCM showing messages and menus.



Slicer Groove – slice off the extra media easily along this groove.

Cutting Pad – provides the protection of blade when the blade is cutting.

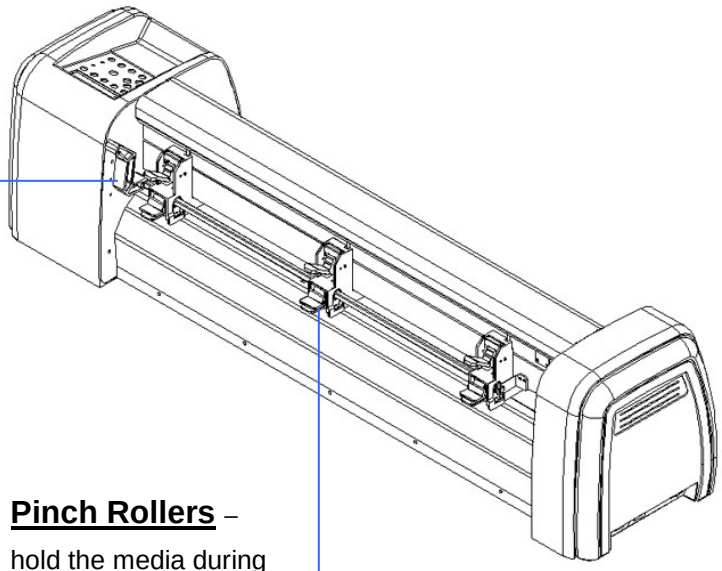
Platen – provides the surface for holding and supporting media while performing cutting.

Alignment Rulers – media can be aligned with the clear guide line marks.

Figure 1-1

1.4.2 The Back View (Figure 1-2)

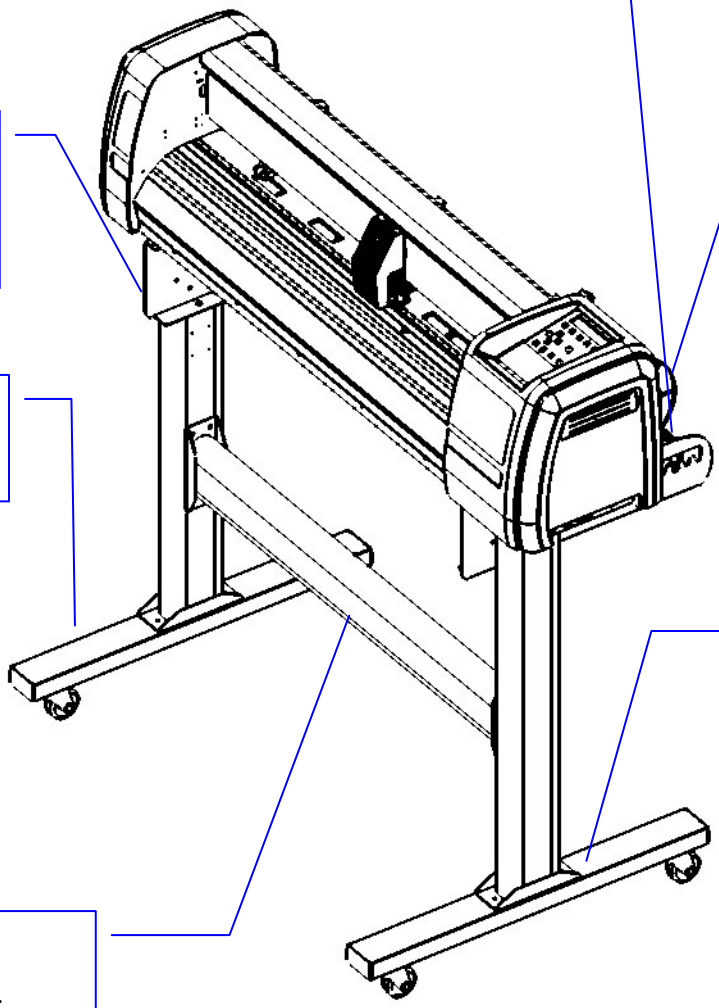
Lever –
raises or lowers the pinch rollers.



Pinch Rollers –
hold the media during cutting.

Figure 1-2

1.4.3 The Whole View of RX Series (Figure 1-3)



Roll Holder – holds and supplies the roll media for cutting.

Roll Holder Guide Bushes – serve to keep the roll media in place when media is pulled from the roll.

Roll Holder Support – supports roll holders.

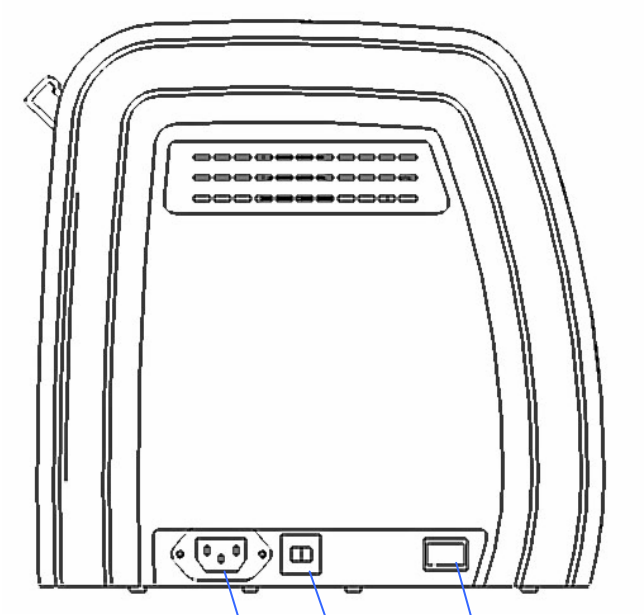
T-Stand –supports the cutting plotter

T-Stand –supports the cutting plotter

Stand Beam – stabilizes the body.

Figure 1-3

1.4 4 The Left-hand Side (Figure 1-4)



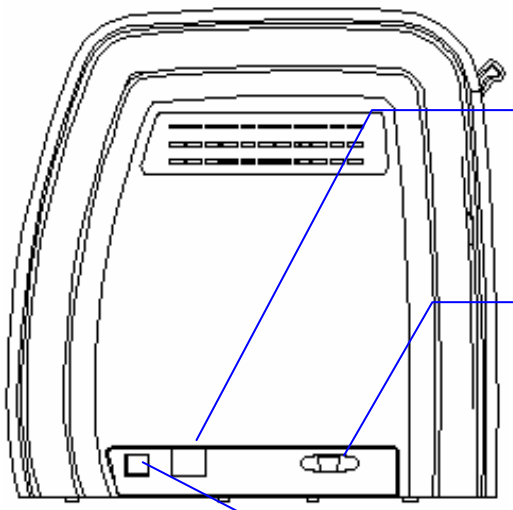
Power Switch – On when switches to [I]; Off to [O]

Fuse – 3 Amp.

AC Power Connector – used to insert the AC power cord.

Figure 1-4

1.4.5 The Right-hand Side (Figure 1-5)



Ethernet Connector– used to connect your computer to a local area network.

Serial Interface Connector (RS232C) – used to connect the cutting plotter to a computer through a serial interface cable.

USB Connector – used to connect the cutting plotter to a computer through a USB cable.

Figure 1-5

1.4.6 Pinch roller (Figure 1-6)

The Multi-Pressure Pinch Rollers give users three pressure settings to better cater to the different types of media that they are working with, for example, set light hold-down pressure of the pinch roller in the middle when cutting thin materials such as window tinting film.

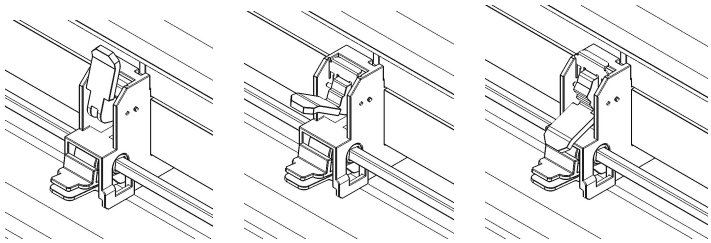
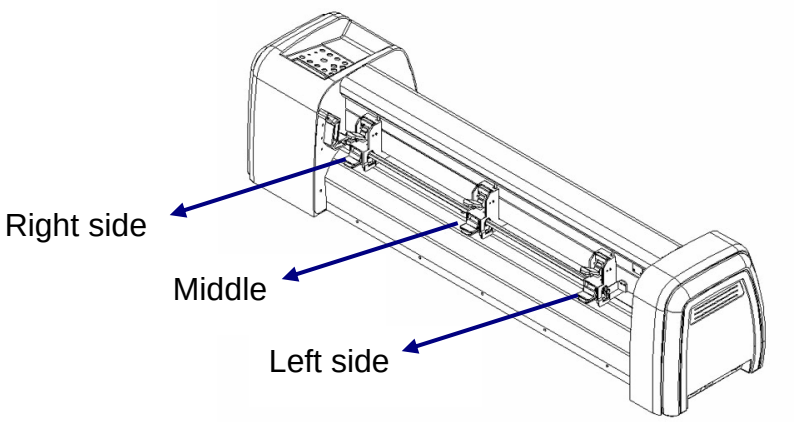


Figure 1-6

Please note that the pressure of the pinch rollers on the left and right sides should always be the same or heavier than the pinch rollers in the middle. The pressure of the pinch rollers on the left and right sides should be set to the same pressure setting. You can use the following combinations of the pinch rollers. (**Table 1-1**)



Left side	Middle	Right side
Heavy	Medium	Heavy
Medium	Medium	Medium
Medium	Light	Medium

Table 1-1

2. Installation

2.1 Precaution

Please read below information carefully before you start installation.

Notice 1

- Make sure the power switch is off before installing the cutting plotter.
- Carefully handle the cutter to prevent any injuries.

Notice 2 Choosing a proper place before setting up the cutting plotter

Before installing your cutting plotter, select a suitable location, which meets the following conditions.

- The machine can be approached easily from any direction.
- Keep enough space for the machine, accessories and supplies.
- Keep the working area stable, avoiding sever vibration.
- Keep the temperature between ***15 and 30℃ (60-86°F)*** in the workshop.
- The relative humidity of the working environment should be between **25% to 75%**.
- Protecting the machine from dust and strong air current.
- Preventing the machine from direct sunlight or extremely bright lighting.

Notice 3 Connecting the Power Supply

Check the plug of the power cord to see if it matches with the wall outlet. If not, please contact your dealer.

- Insert the plug (male) into a grounded power outlet.
- Insert the other end (female) of power cord into the AC connector of cutting plotter.

2.2 Stand & Flexible Media Support System (for RX-101S/132S/183S)

Step 1

Please examine supplied items in the accessory box of stand carton:

- 2 pieces of base beams
- 2 pieces of side beams
- 1 piece of stand beam
- 20 pieces of M6 screws
- 1 piece of M5 L-shape hexagon screw driver
- 1 piece of Installation Guide for Stand Set

Step 2

- Remove the plotter body and the accessories from the shipped carton.
- Assemble the base beam to the side beam with 2 screws to form a T-shape stand. (See Figure 2-1)

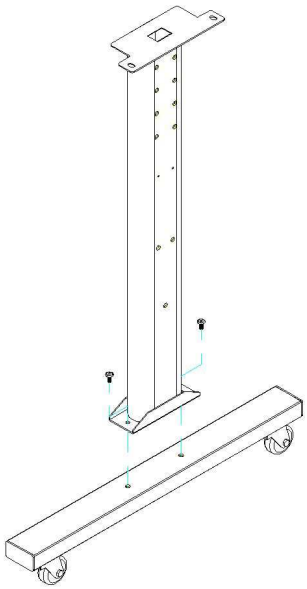


Figure 2-1

Please pay attention to the direction of the base beam (the wheel on the front end of the beam comes with a break while the rear one is on its own).

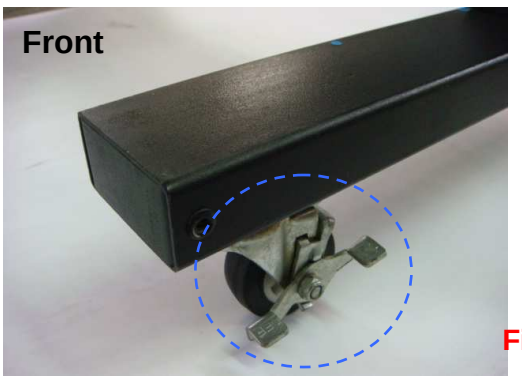


Figure2- 2

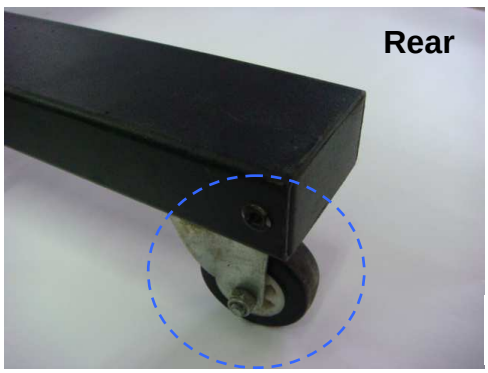


Figure 2-3

Step 3

Place the stand beam upright on the T-stand and follow number ❶❷ to assemble.
(See Figure 2-4 & 2-5)

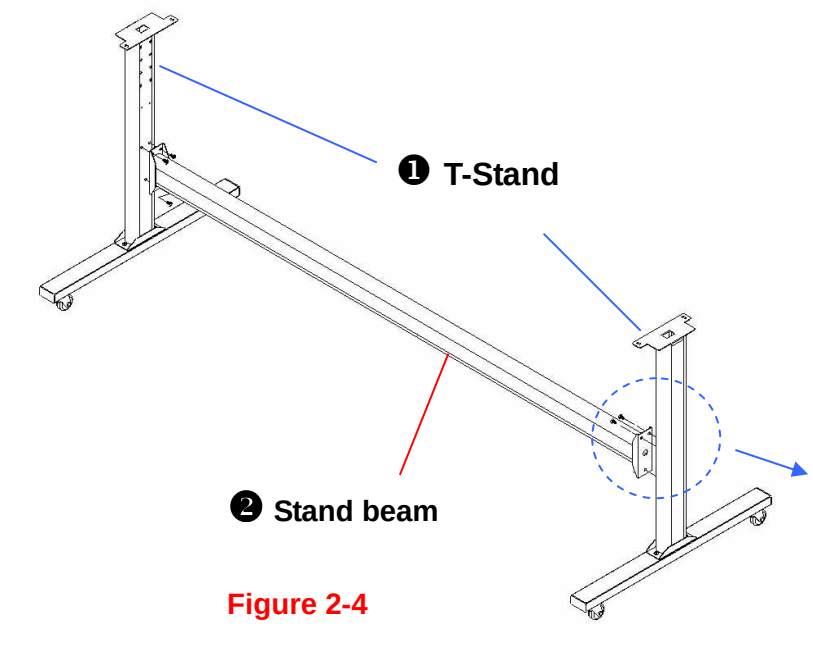


Figure 2-4

Figure 2-5

Step 4

Position the stand beam perpendicularly to part ❶and put the screws into the holes and tighten them as Figure 2-5. Then the complete picture of stand will be like Figure 2-4.

Step 5

Remove the cutting plotter from the carton. Position your stand under the plotter, and then insert the screws into the holes on plotter's bottom and tighten them up as shown in Figure 2-6.

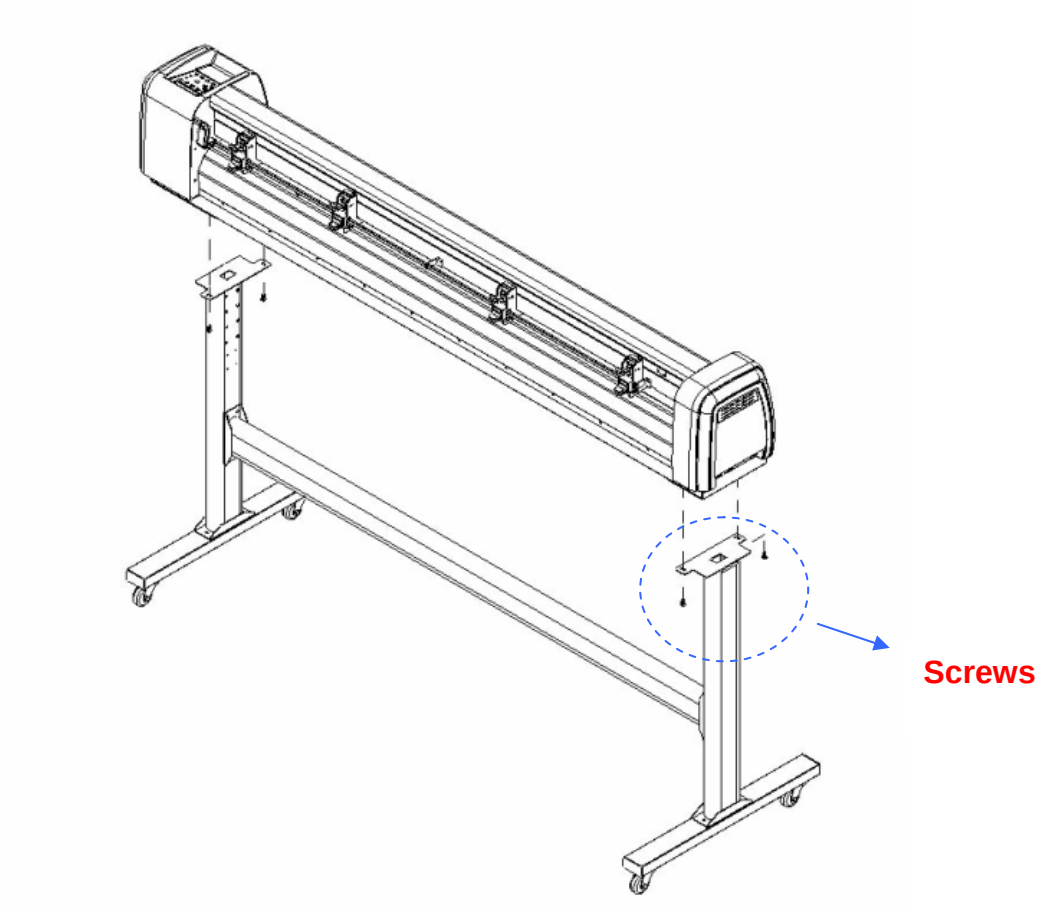


Figure 2-6

Step 6

Insert the roll holder support with the screws into the holes of the stand, and then tighten them up as shown in Figure 2-7. You could decide roll holder support's position by inserting into different holes.

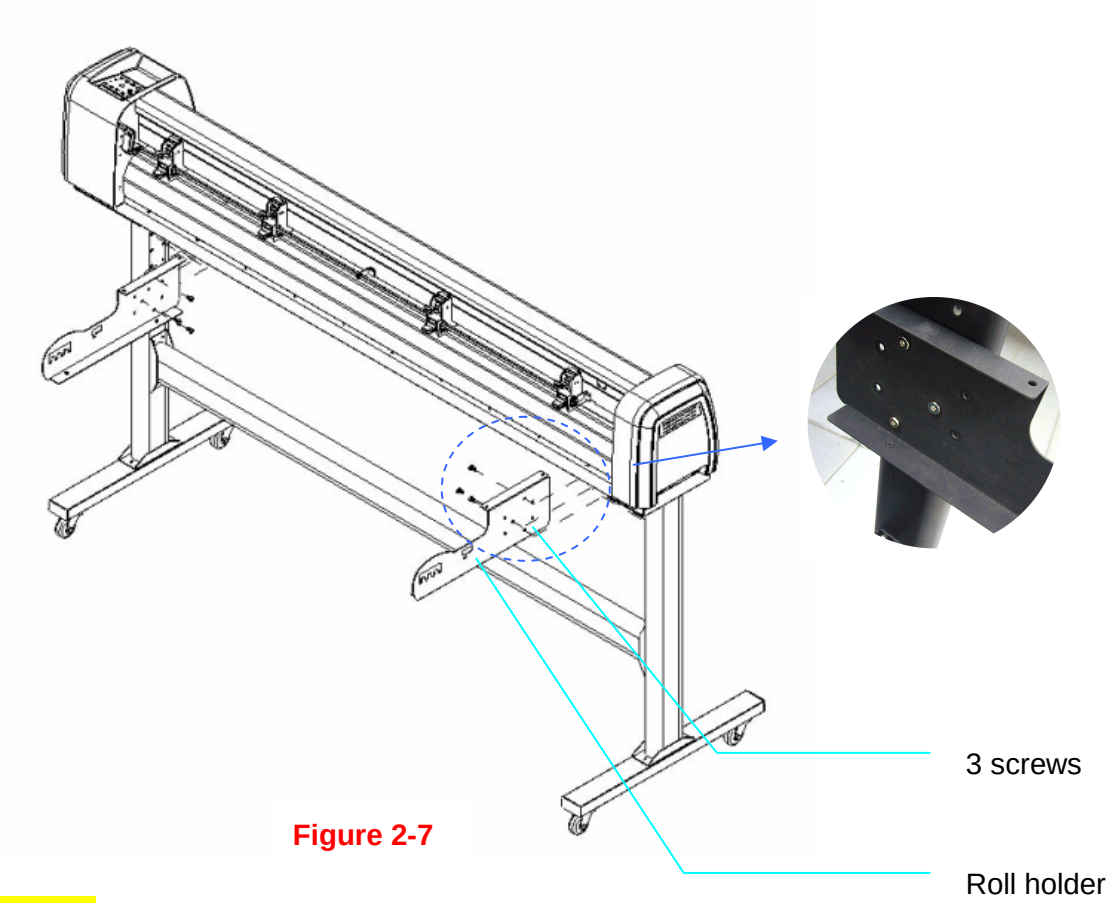


Figure 2-7

Step 6

Place two roll holders onto the roll holder support and ensure the white protrusion is wedged in the groove. (Figure 2-8)

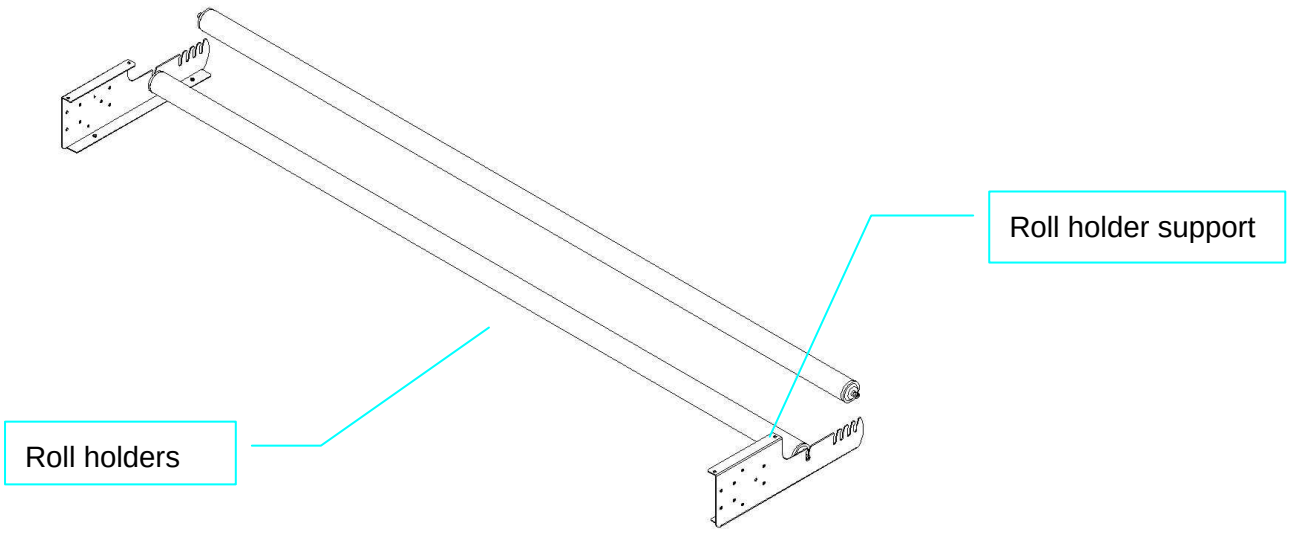


Figure 2-8

Step 8

Turn the screw counter-clockwisely for around three times after unpacking the roll holder (Figure 2-9).

Figure 2-9

Step 9

Insert the end of the roll holder without the damper into the left roll holder support and then insert the end of the roll holder with the damper into the right roll holder support and ensure the white protrusion is wedged in the groove (Figure 2-10).

Figure 2-10

Step 10

Tighten the screw on the damper until it is securely attached to the right roll holder support (Figure 2-11).

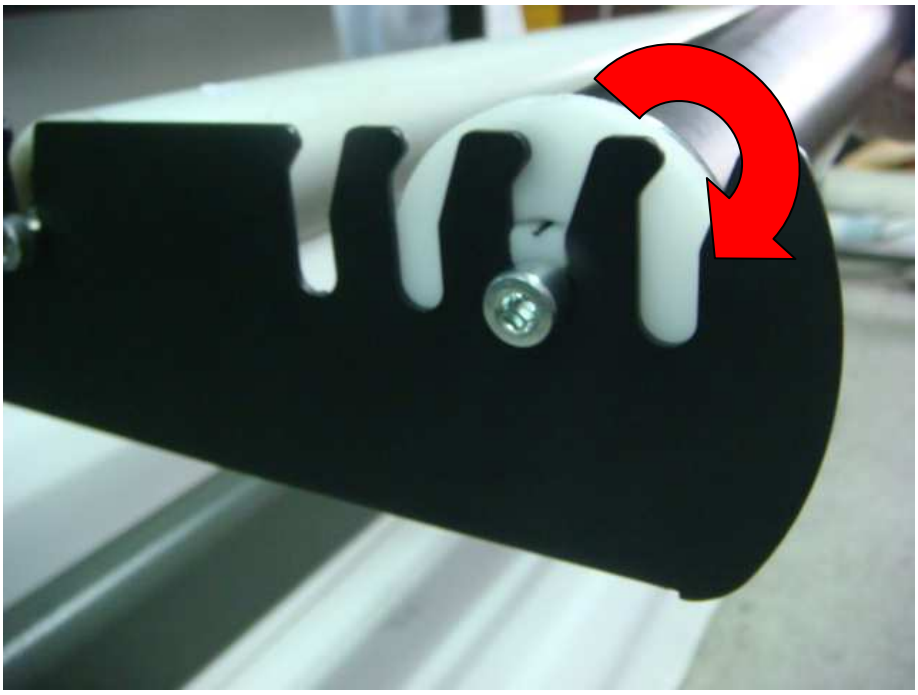


Figure 2-11

Step 11

Lastly, the complete picture will be shown like below. (Figure 2-12)

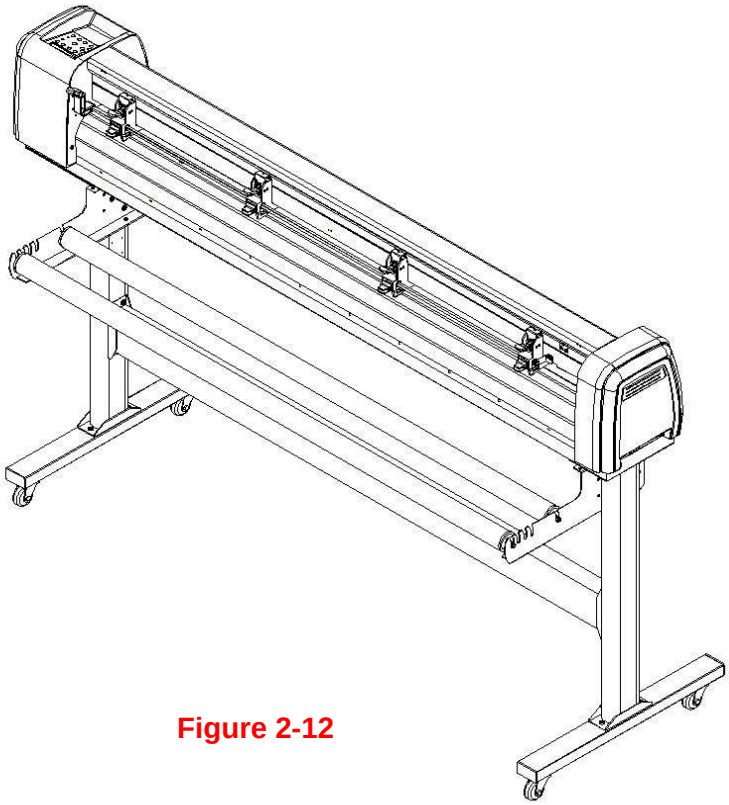


Figure 2-12

2.3 Desktop Flexible Media Support System (For RX-61 only)

Step 1

Please examine the following items in stand carton's accessory box:

- 1 set of Roll Media Flange (2 pieces)
- 1 set of Roll Holder (2 pieces)
- 1 set of Roll Holder Guide Bushes (4 pieces)
- 1 set of Roll Holder Support (2 pieces)
- 1 set of Desktop Support Bracket (2 pieces)
- 4 pieces of Plastic Foot
- 4 pieces of M4 screws
- 12 pieces of M6 screws
- 1 piece of M4 L-shape hexagon screw driver
- 1 piece of M5 L-shape hexagon screw driver
- 1 piece of M6 L-shape hexagon screw driver (for adjusting the screws of Roll Holders)
- 1 piece of Installation Guide for Roll Holder

Step 2

Put the 4 Plastic Foot under the Roll Holder Support and insert the M4 screw into the hole of Plastic Foot and tighten them with the M4 L-shape screw driver. (Figure 2-7)

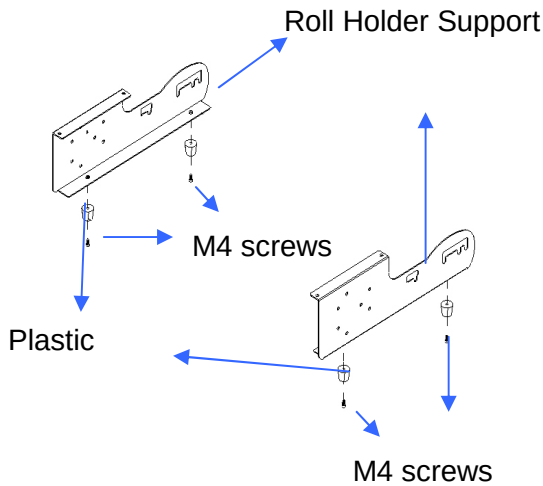
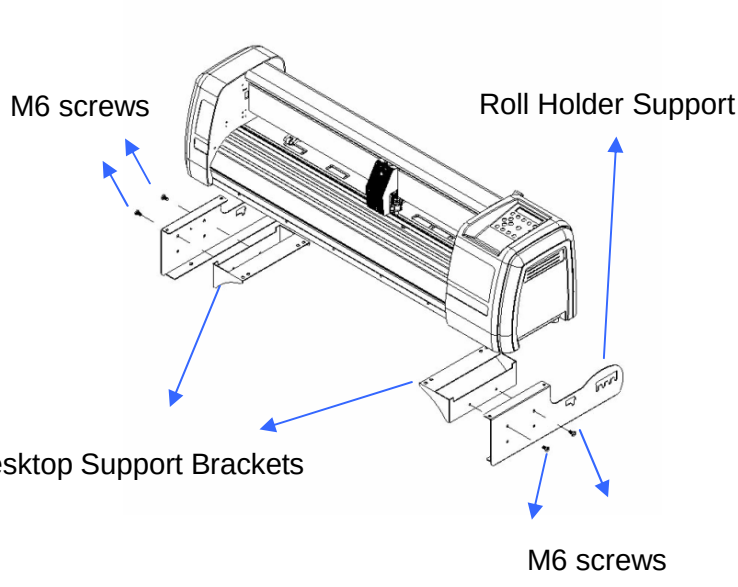


Figure 2-7

Figure 2-8



Step 3 Position the Desktop Support Brackets beside the Roll Holder Support and insert M6 screws into the Roll Holder Support and tighten them with M6 L-shape screw driver. (Refer to Figure 2-8 on the previous page).

Step 4

Put the bottom of machine in lateral, and position the Roll Holder Assembly beside the bottom

of the machine. Then, insert the M6 screws into the holes of Roll Holder support assembly and tighten them with M6 L-shape screwdriver. Like Figure 2-9.

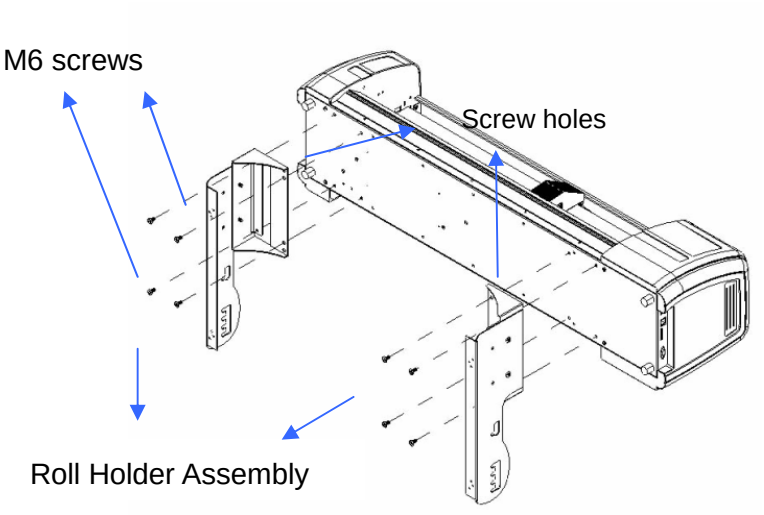


Figure 2-9

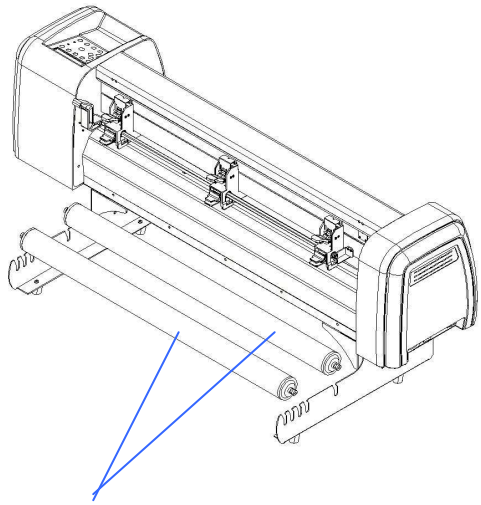


Figure 2-10

Step 5

Place the two roll holders into the holes of Roll Holder Support (Figure 2-10).

Step 6

The complete Desktop Media Support System will be shown as in Figure 2-11.

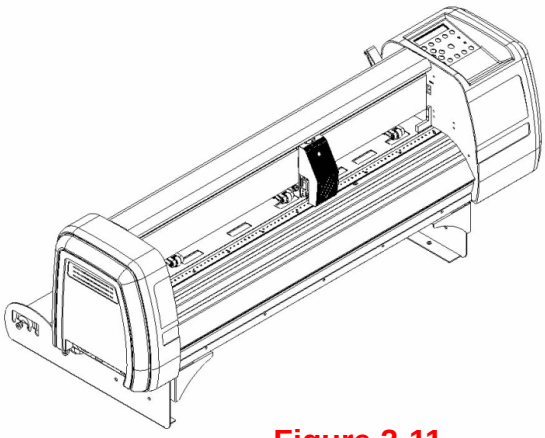


Figure 2-11

2.4 Instruction of Damper Roller

Turn the wheel as instructed below to adjust damping. The bigger the number is, the stronger the damping. The volume symbol sticker indicates the damping level (Figure 2-18,19).

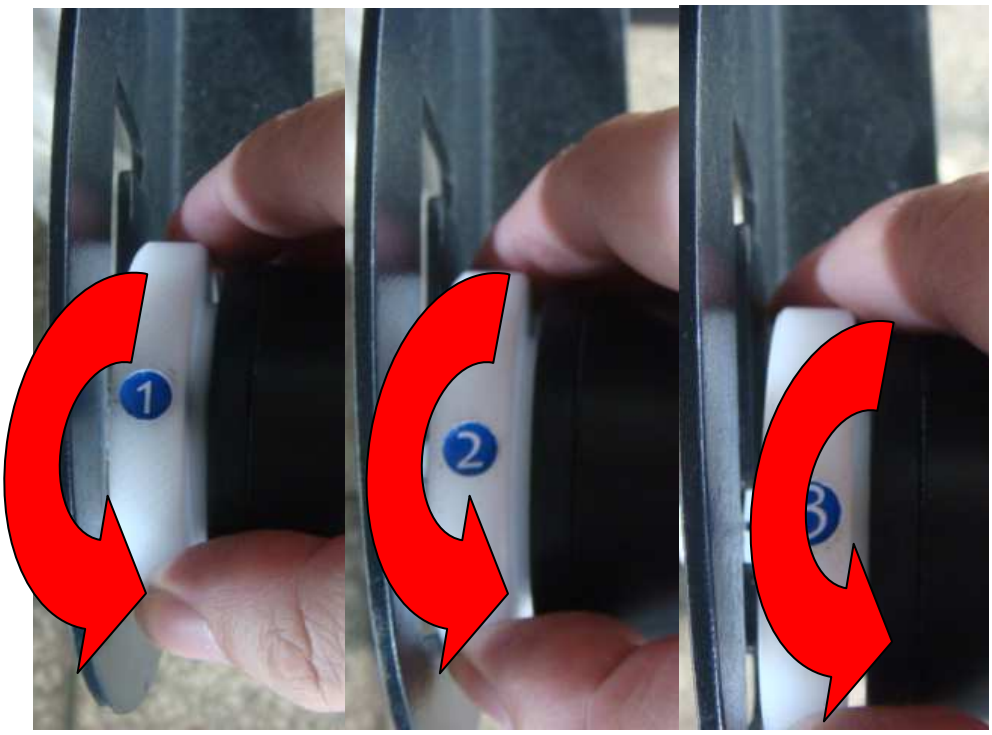


Figure 2-18

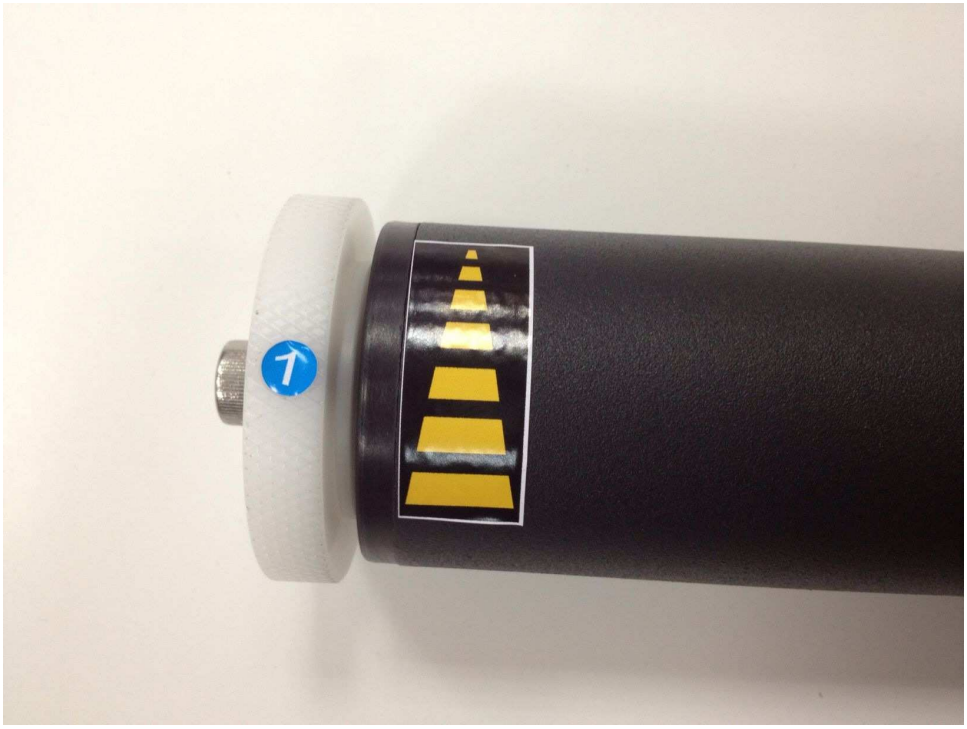


Figure 2-19

2.5 Blade Installation

Figure 2-20 is the illustrator of the blade holder. Insert a blade into the bottom of the blade holder and remove the blade by pushing the pin. Make sure that your fingers are away from the blade tip.

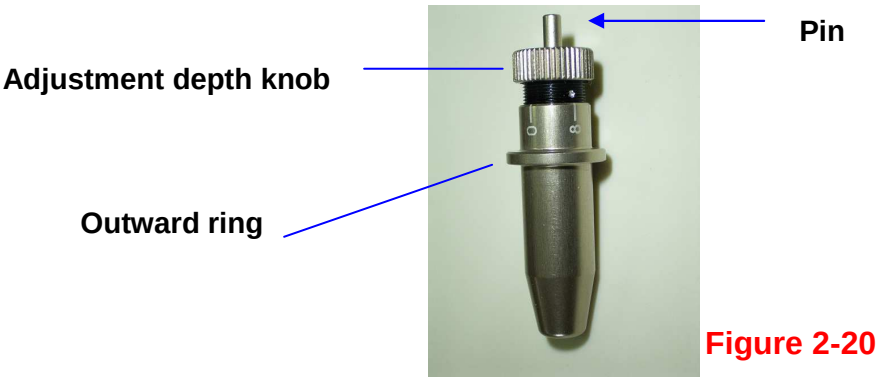


Figure 2-20

Step 1

Install blade (Figure 2-21).

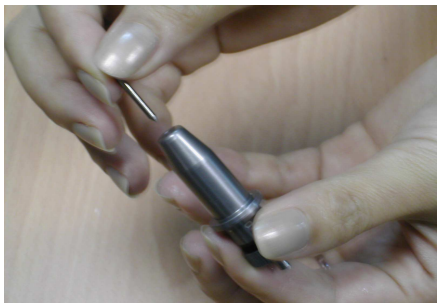


Figure 2-21

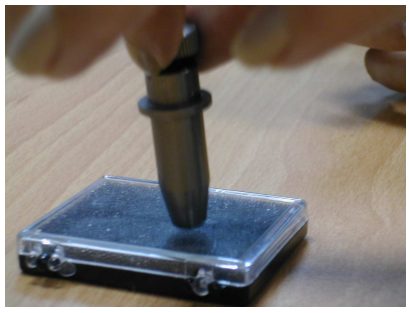


Figure 2-22

Step 2

Push the blade to the bottom of the blade holder. (Figure 2-22).

Step 3

Adjust the blade tip to suitable length by screwing “Blade tip adjustment screw” clockwise or count-clockwise. (Figure 2-23).

Figure 2-23

Tips:

“The proper length” means the blade’s length is adjusted 0.1mm more than film’s thickness. That is, if the thickness of film is 0.5mm, then blade’s length is properly adjusted 0.6mm and it can completely cut through the film layer yet avoid penetrating the backing.

Step 4

Insert the blade holder into tool carriage. Please note the outward ring of the holder must put into the grooves of carriage firmly (see Figure 2-24), then fasten the case (Figure 2-25).

Figure 2-24

Figure 2-25

Step 5 Use the reversing steps to remove the blade holder.

Step 6 Eject the blade. Push “Blade eject pin” to eject blade when the blade needs to be replaced.

Caution

The blade will lose its sharpness after a period of usage; the cutting quality might be affected. By increasing the cutting force, it might do the trick. However, once the blade is worn out and no longer provides a reliable cutting, you should replace a new one. The blade is consumable and must be replaced as often as necessary to maintain the cutting quality. The quality of the blade deeply affects cutting quality. So be sure to use a high quality blade to ensure good cutting results.

2.6 Automatic Blade Length Detection

Figure 2.-26 is the new blade holder with a scale and the carriage with a mark. This blade holder detects blade length automatically and shows how the knob needs to be turned on the LCM.

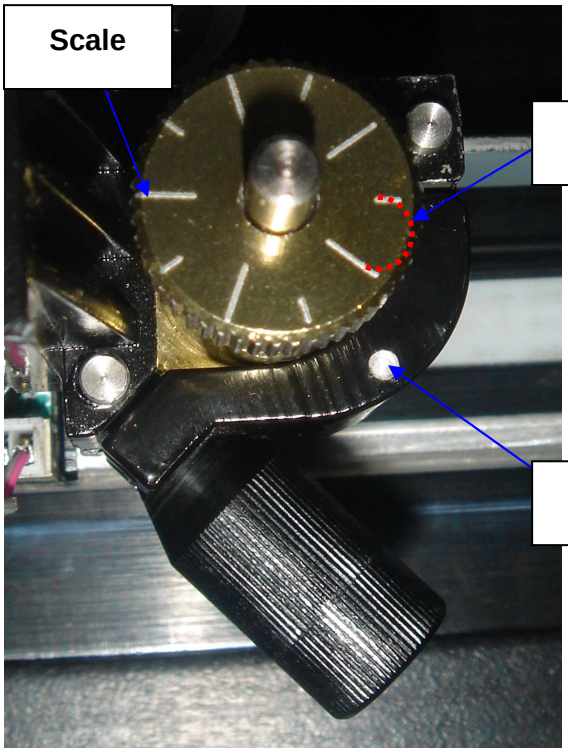


Figure 2-26

Figure 2-27

There are 10 units on the scale; each unit equals to 0.05 mm, allowing you to adjust the blade length for 0.00mm-5.00mm (Figure 2-27).

Follow the steps below to adjust the length of the blade:

1. Keep the blade tip within the blade holder before you start adjusting.
2. Align one of the scales on the blade holder to the mark on the carriage
3. Select “Blade Length Adjust” under “CUT TEST” on the LCM, enter the blade length wished in “Set Length”; test the blade holder first and then test the blade length by pressing ENTER.

Note: Keep the blade holder at the same position when you perform blade holder and blade length tests.

4. When blade holder and blade length tests are finished, the screen will show you to what degree (the unit of the value following “CW” or “CCW” is “circle”) and in which direction [CW (clockwise) or CCW (counterclockwise)] you should turn the adjustment knob.
   EG, Turn CW 5 is telling you that you should turn the knob for 5 units clock-wisely (Figure 2-28, Figure 2-29).

5. The screen will show "Adjustment completes" when the value on the screen is 0, the blade length is perfect and no more adjustment needs to be made. Press "Enter" now to complete the process and you may start cutting at this point.

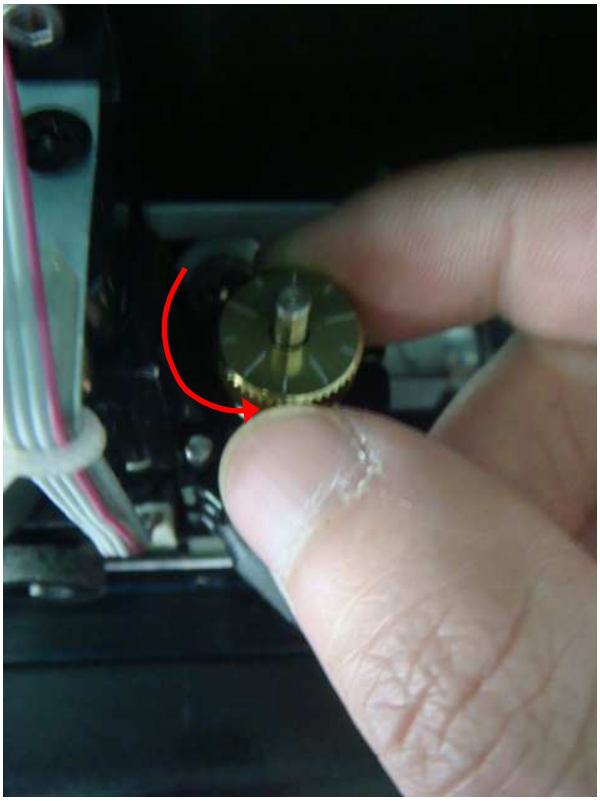


Figure 2-28

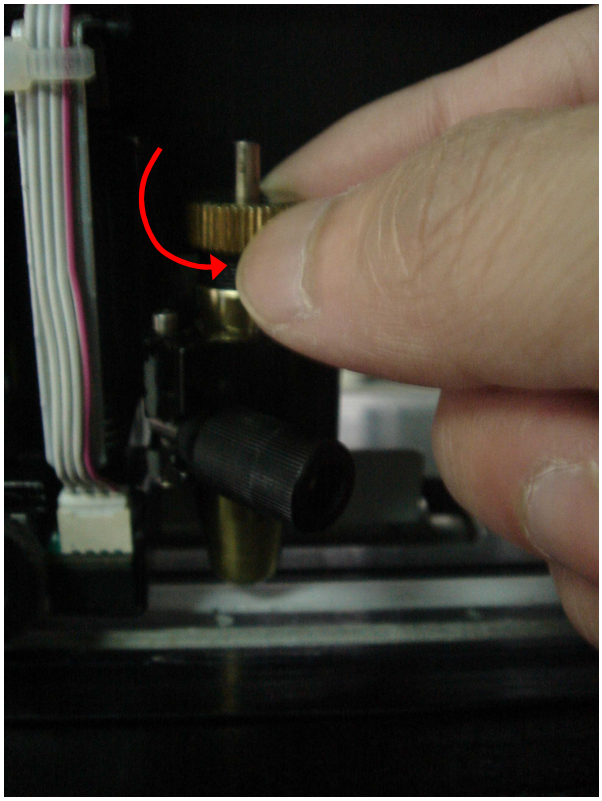


Figure 2-29

2.7 Cable Connection

The cutting plotter communicates with a computer through a **USB (Universal Serial Bus), or** a **Serial port (RS-232C)**. This chapter shows you how to connect the cutting plotter to a host computer and how to set up the computer/cutting plotter interconnection.

!! **Notice:** When USB connection is enabled, the serial port will be disabled automatically.

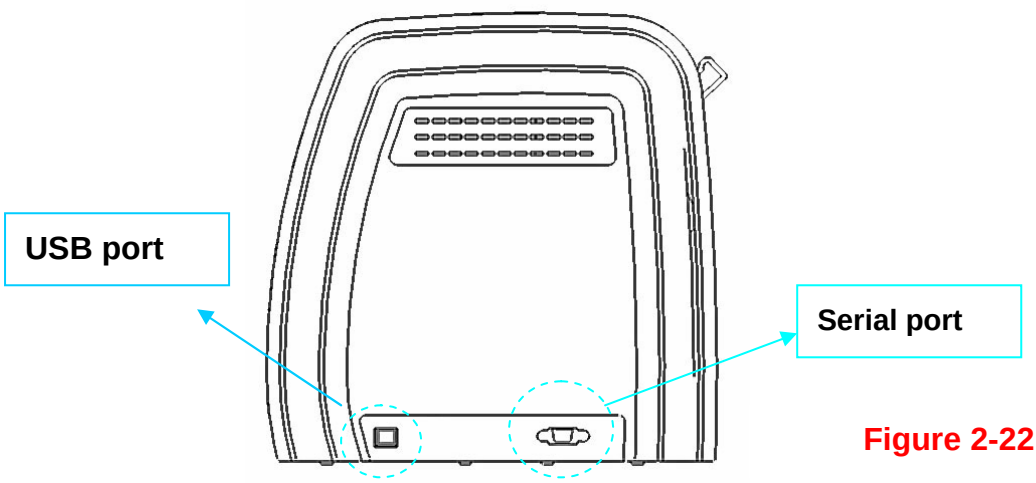


Figure 2-22

2.7.1 USB Interface

RX series build-in USB interface are based on the Universal Serial Bus Specifications Revision 1.1. (Operation system of Windows 95, Windows NT don't support USB).

- USB driver installation

Caution!!

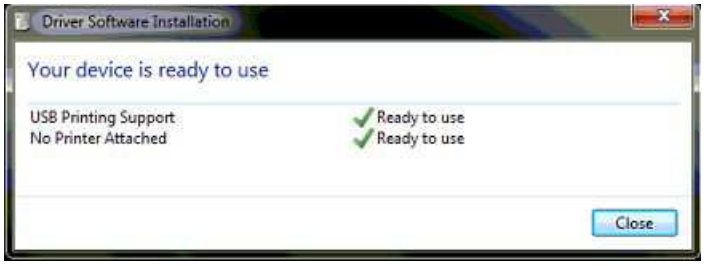
✓ **If you are using Windows 8/ 7/ Vista/ XP/ 2000 as your operating system, make sure you log in using the "Administrator" account.**

Use the USB One-click Installation for quick driver installation. Follow the simple steps below for driver setup.

Step 1:

Connecting your GCC cutter

1. Turn on the machine.
2. Connect the USB connector to the machine and then USB driver will installed automatically. It will take a few minutes to find the device. Please DO NOT disconnect the USB cable until the installation has completed.
3. You can double click the USB icon on the taskbar to make sure the USB device is detected.

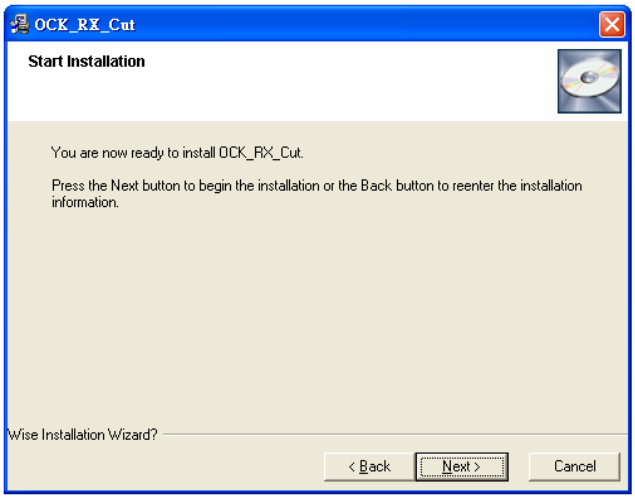


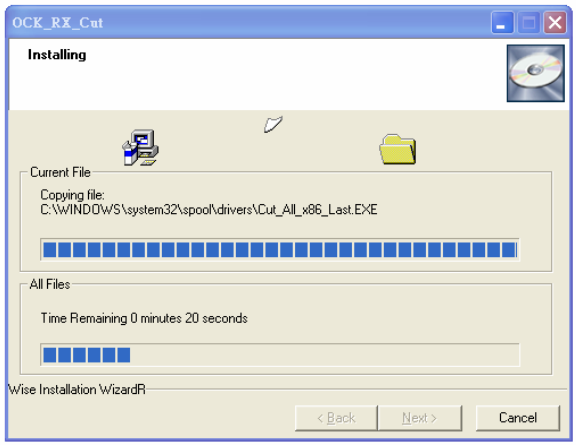
Step 2: Installing the software

(1) Put the installation CD into your CD-ROM. **Please make sure that the USB device is connected before you start the driver installation.**

(2) Choose the model you want to install from the driver list and click on Win 8/ 7/ Vista/ XP Driver (Manual Selection) or Win 8/ 7/ Vista/ XP Driver (Automatic detection) to start installing the Driver and AAS plugin.

(3) Click “Next” to start the driver installation.


OCK_RX_Cut
Start Installation
You are now ready to install OCK_RX_Cut.
Press the Next button to begin the installation or the Back button to reenter the installation information.
Wise Installation Wizard?
< Back
Next >
Cancel



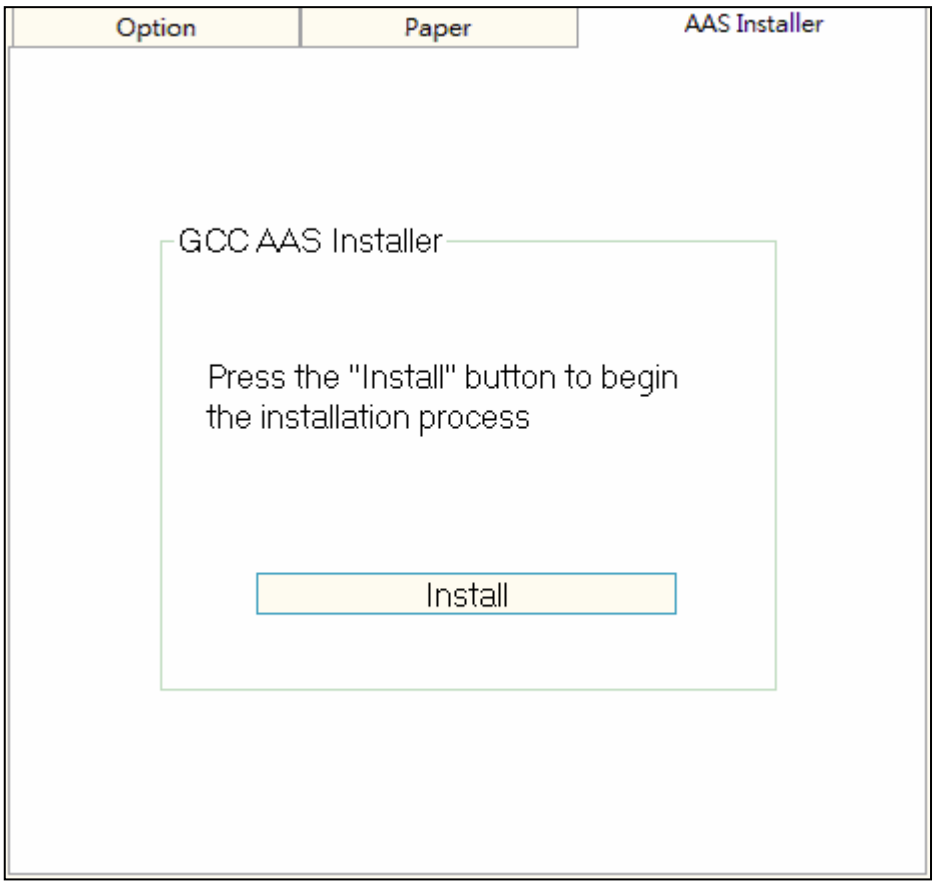
(4) The installation will take a few minutes to complete and you will see a message below and click on “OK” upon completion. Enjoy your GCC cutter!

Note:

(1) If the driver is being installed for a second time, the user will be prompted as to whether a second copy of the driver installation is required.

(2) If the user selects yes, a second copy of the driver will be installed.

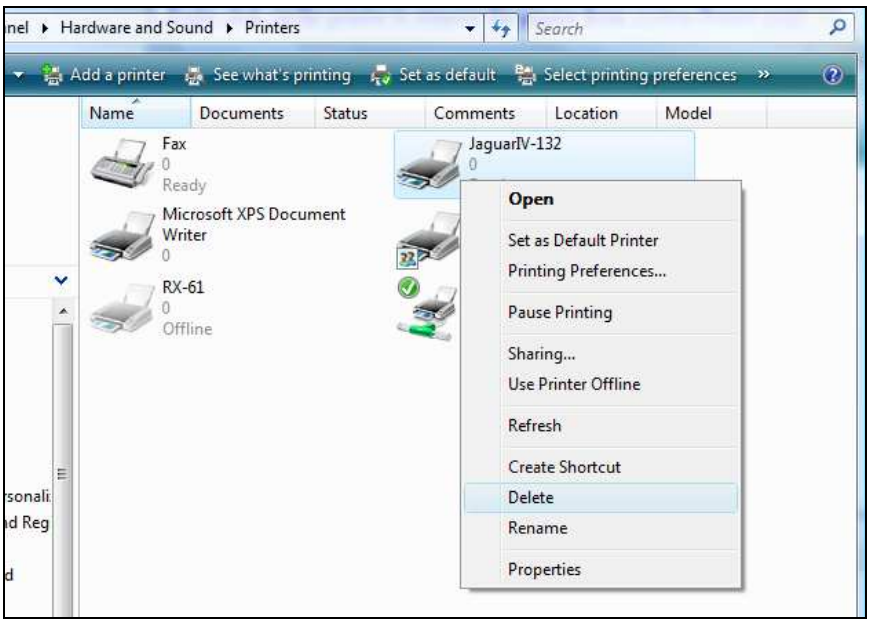
For users who have upgraded Adobe Illustrator or CorelDRAW, please go to the AAS Installer page in the Properties window and click Install to access the latest version of GCC AAS Plugin.

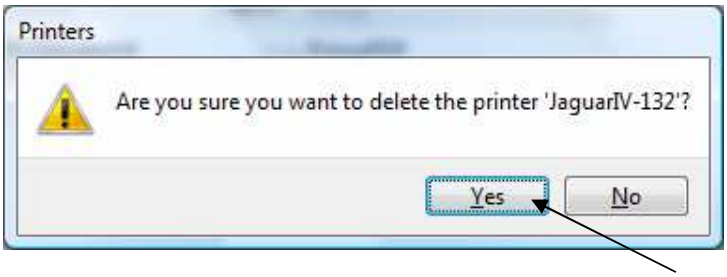


2.7.2 Driver Un-installation

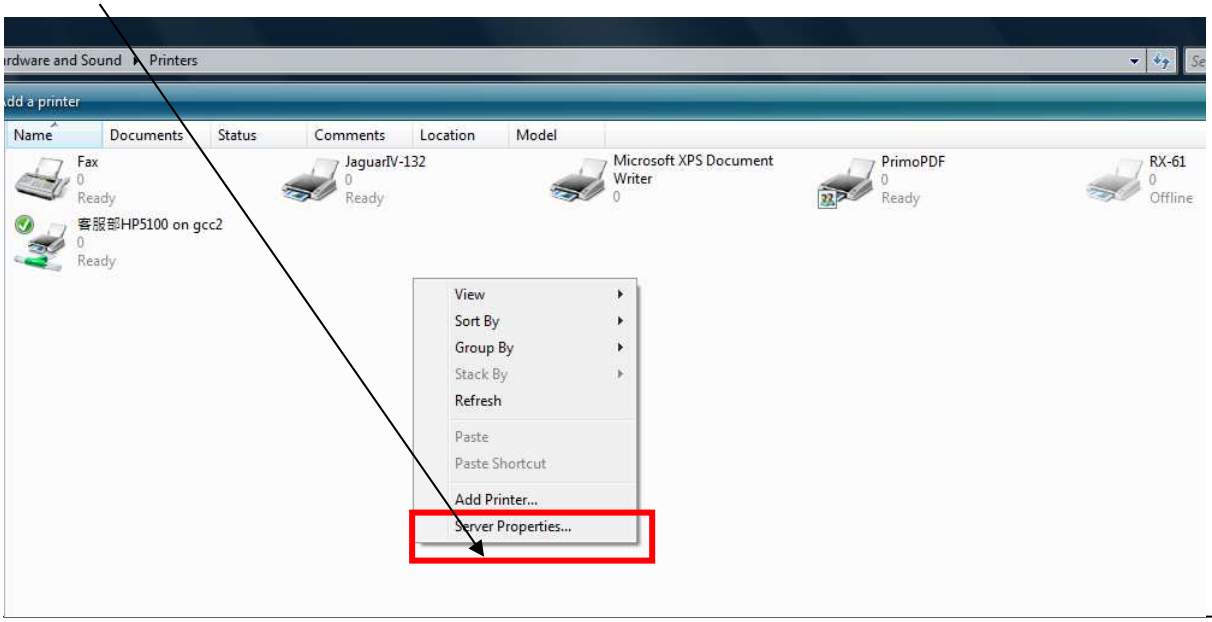
You have to remove previous version driver installed on your PC system completely before you can install the latest version successfully. Please refer to below steps.

1. Right click on the printer to remove the printer from system Printer page.

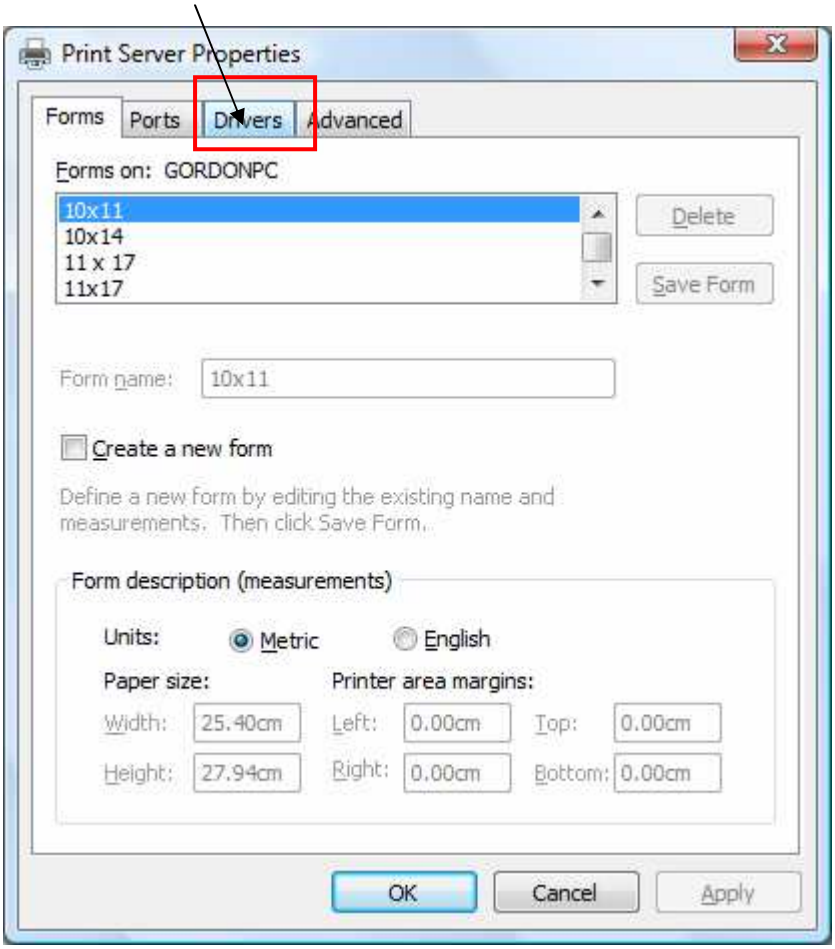


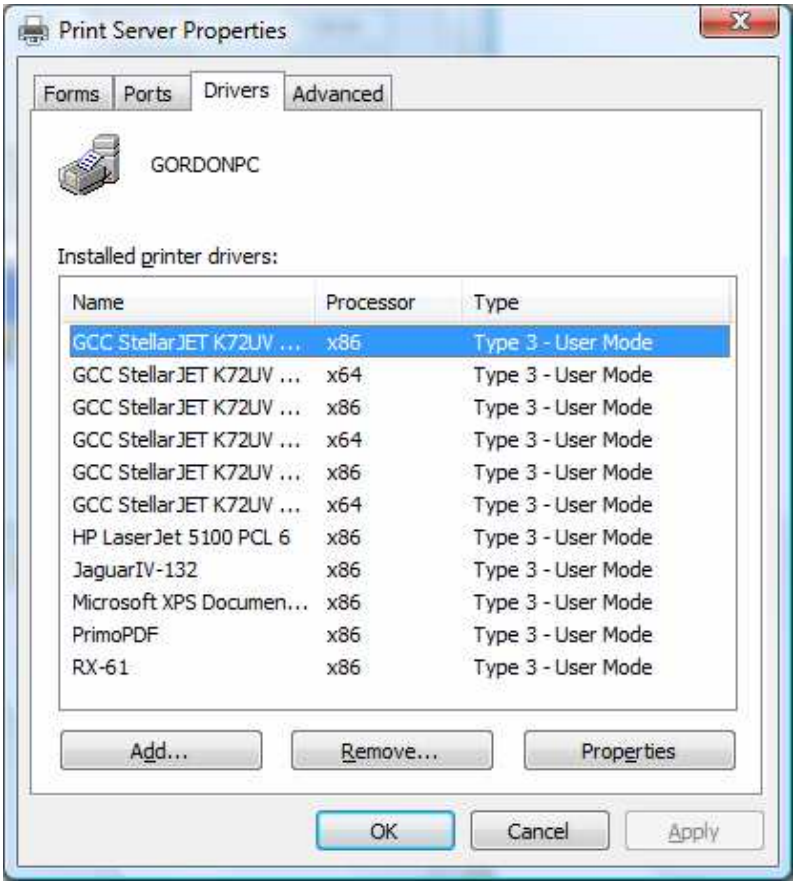


2. After removing the unit, right click on any empty space on the page and select “Server Property”



3. Select “Driver” page

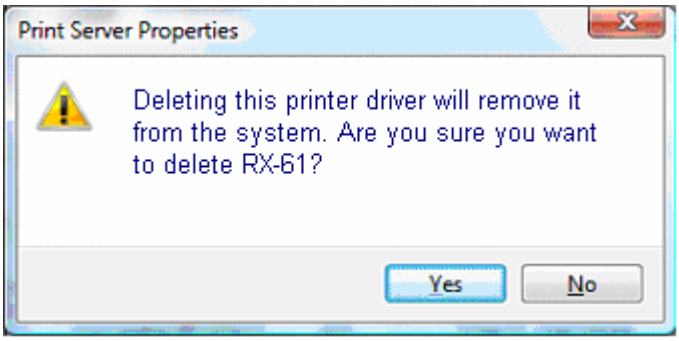




Select the model and click on “Remove”.

Remove Driver And Package
Do you want to remove the driver(s) only, or remove the driver(s) and driver package(s) from your system?
Remove driver only.
Remove driver and driver package.
OK
Cancel

Click on “OK”


Print Server Properties
Deleting this printer driver will remove it from the system. Are you sure you want to delete RX-61?
Yes
No

Click on “Yes”

The driver installed on PC is completely removed.

2.7.3 RS-232 Interface

- Connecting to the RS-232 (Serial) Port

1. For IBM PC, PS/2 users or compatibles, connect the RS-232C cable to the serial connector of the assigned serial port (COM1 or COM2) of your host computer.
2. Set up the communication parameters (Baud Rate and Data Bits/Parity) to match the setting of software package, refer to chapter 3 – “Misc” key description.

Caution!! Please turn off the plotter before plugging the RS-232C cable.

2.7.4 Data Transmitting

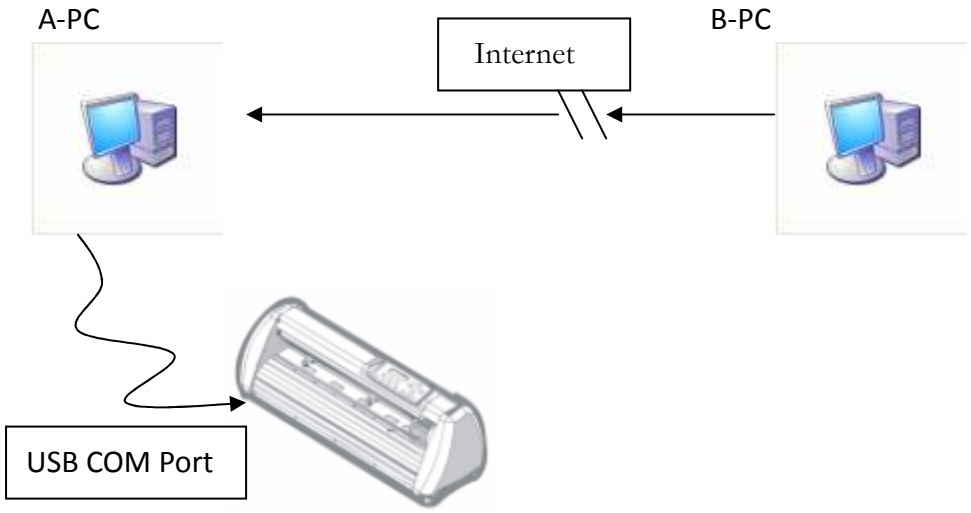
There are two options to transmit the data from the computer to the cutting plotter:

Option 1: With proper interface settings, the data can be transmitted from your application software package to the cutting plotters directly.

Option 2: Most cutting software packages are able to emulate **HP-GL** or **HP-GL/2** commands. As long as the file is **HP-GL** or **HP-GL/2** format, the cutting plotter can output the data precisely.

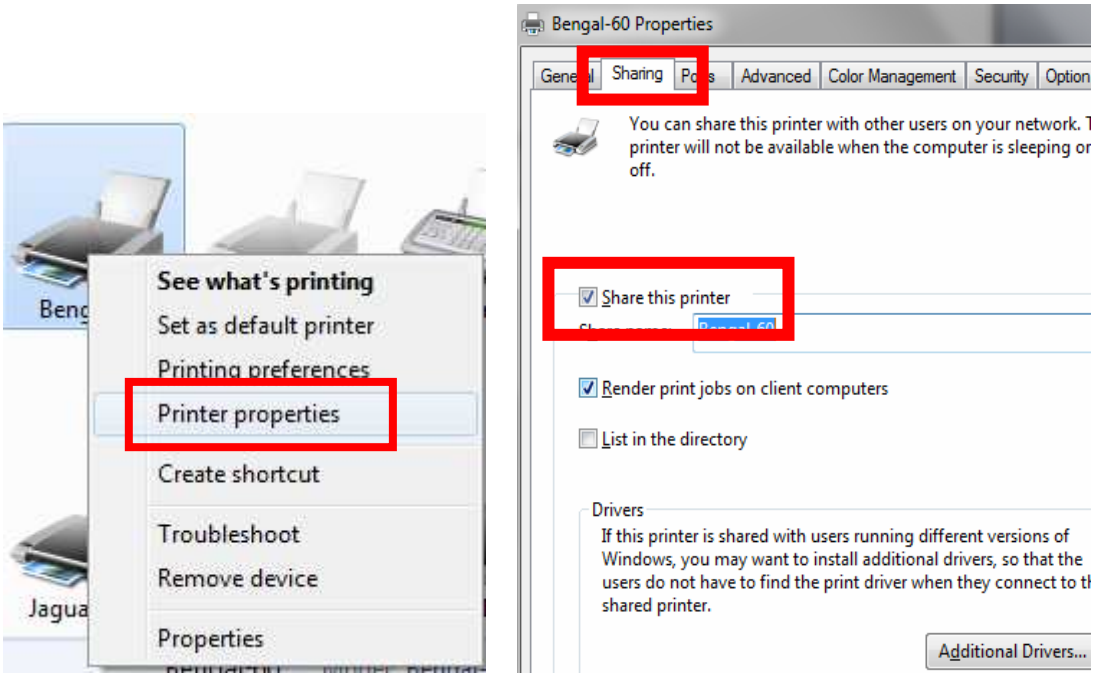
2.7.5 Printer Sever Shared Setting

In “A-PC”, set the printer driver as a shared printer, then use B-PC to connect A-PC’s printer driver via internet.



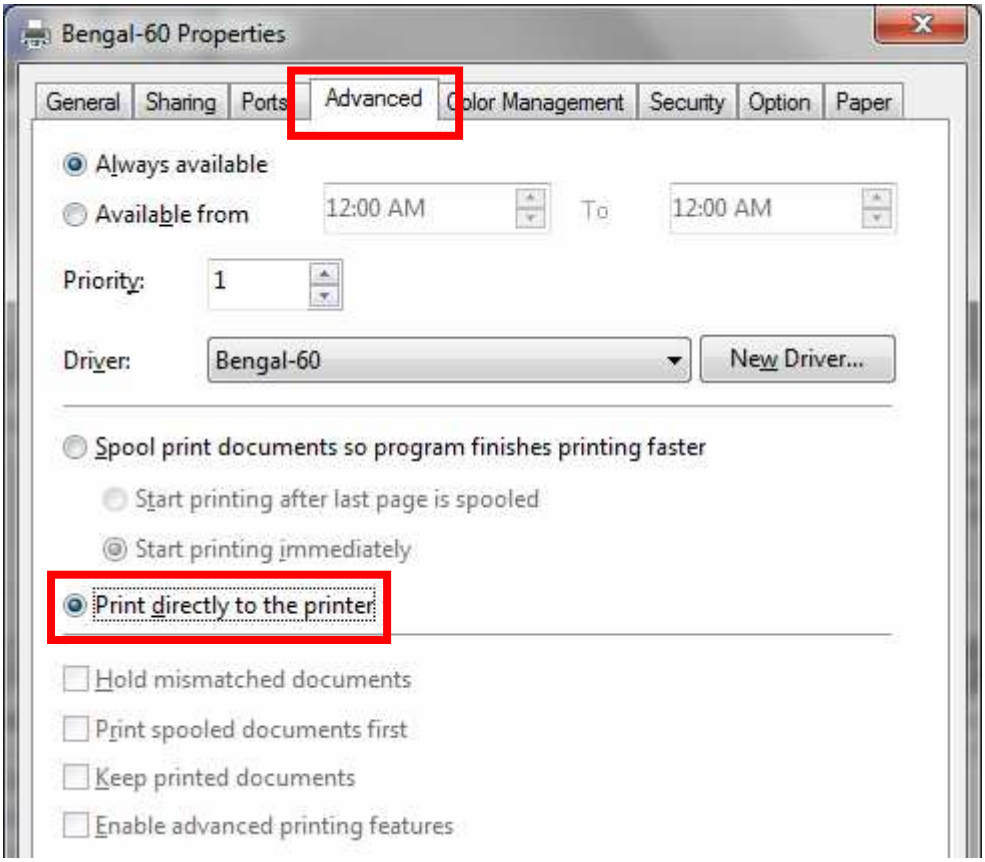
Step 1.

Please set A-PC's printer driver to shared printer. (Right-click on printer icon, choose "Printer properties". Click "Sharing" tab then check "Share this printer")



Step 2.

Click "Advanced" tab, then choose "Print directly to the printer" option.



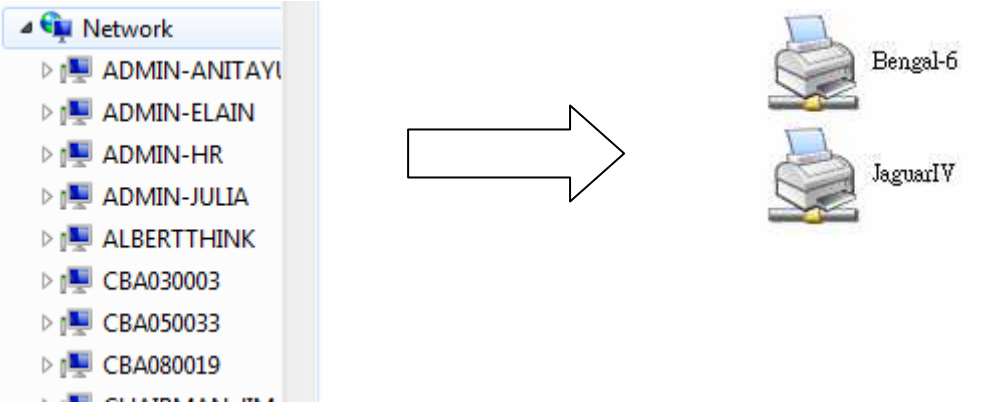
Step 3.

Send a job to the machine to check if A-PC is connected to the machine.

Try to send a job to check if the port is working.

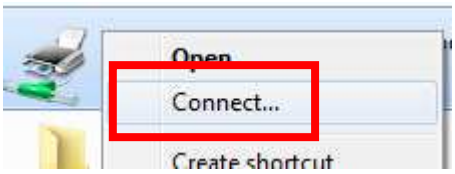
Step 4.

Activate A-PC's Printer Driver from B-PC's Network.



Step 5.

Right-click on printer icon, and select "Connect" to connect A-PC's printer.



2.8 Auto Cut-off system Installation

Step 1 Unscrew the Cover from the Tool Carriage using a screw driver (Figure 2-31 and 2-32).

Figure 2-31

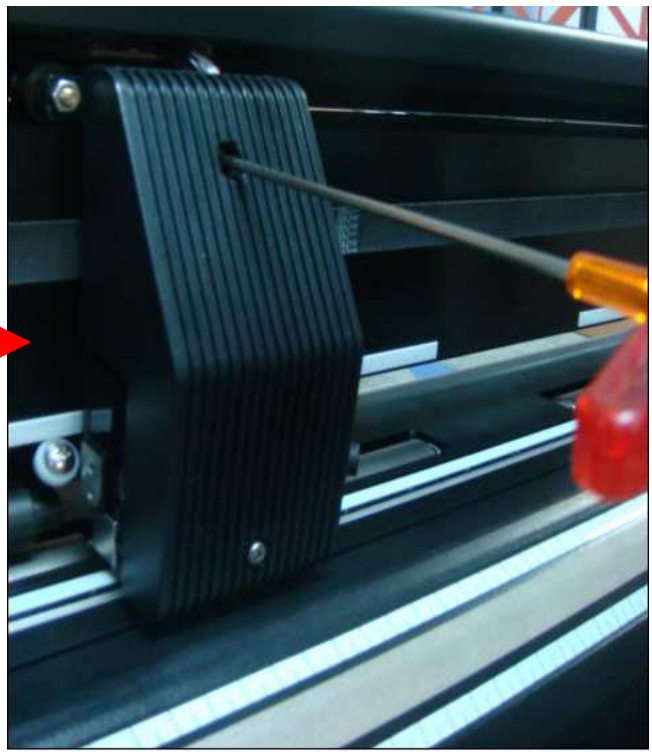


Figure 2-32

Step 2 Manually disassemble the Cover, which will still be connected to the Tool Carriage through wires (Figure 2-33 and 2-34).

Figure 2-33

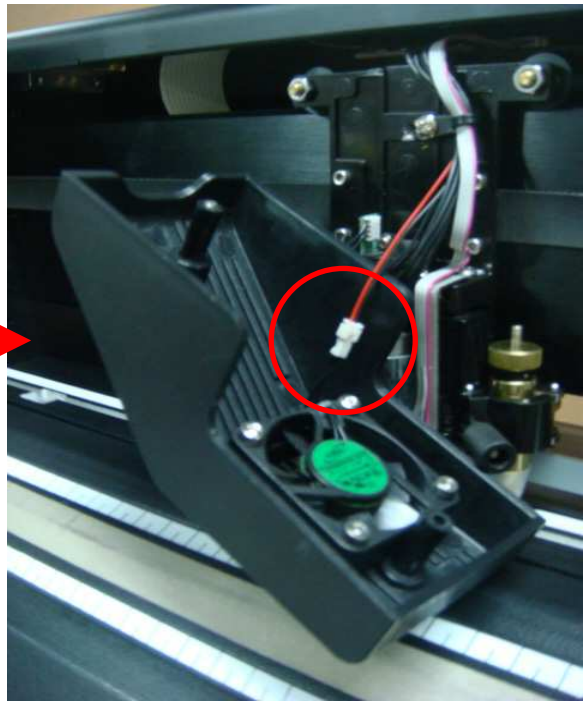


Figure 2-34

Step 3 Disconnect the black and red wires between the Cover and the Tool Carriage from the white Wire Joint and the Cover will be removed completely (Figure 2-35 and 2-36).

Note: Please disconnect the wires at the white Wire Joint with care as the fans will not be working if these wires are split elsewhere.

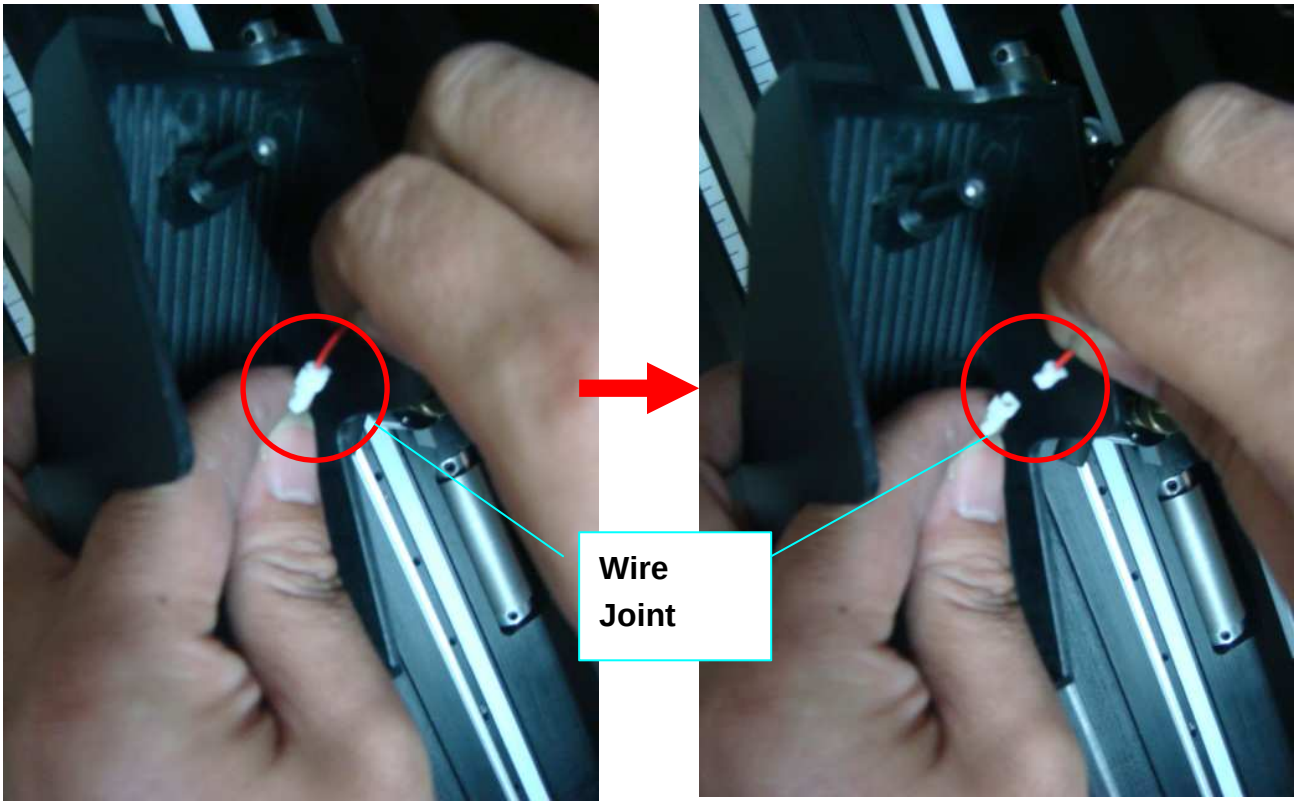


Figure 2-35 **Figure 2-36**

Step 4 Remove the screw on the left of the Cut-off Unit manually (Figure 2-37 and 2-38).

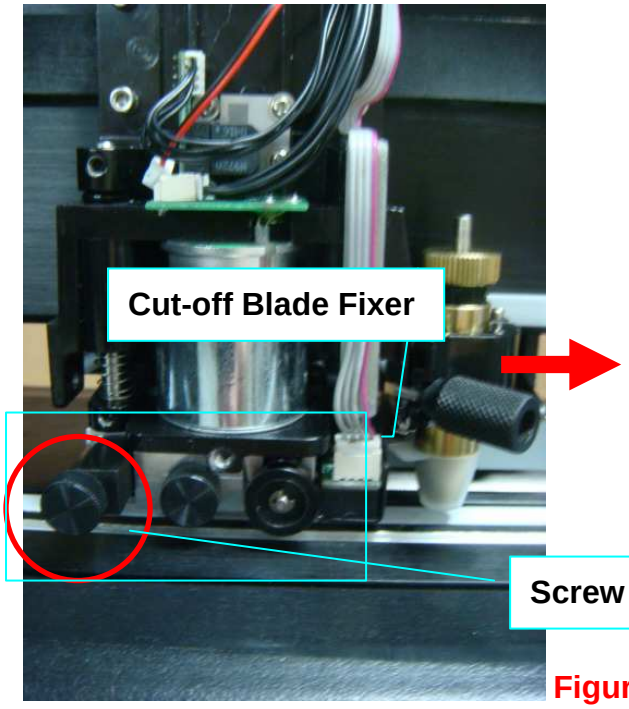


Figure 2-37

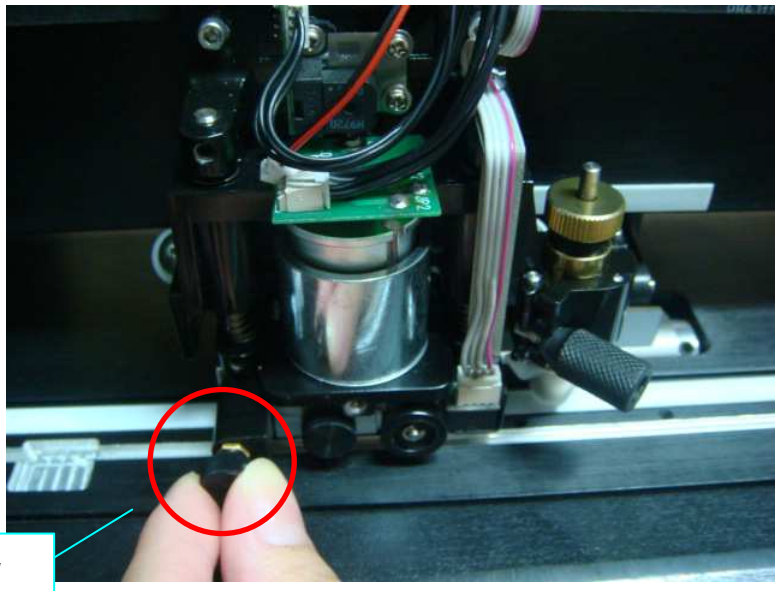


Figure 2-38

Step 5 Remove the entire Cut-off Unit by holding it while pushing the tiny metal board on the right to the left (Figure 2-39 and 2-40).

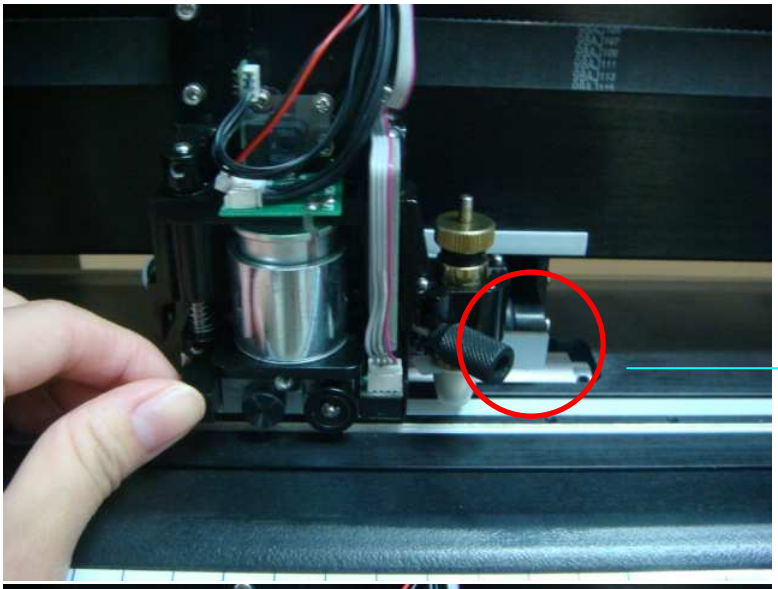


Figure 2-39

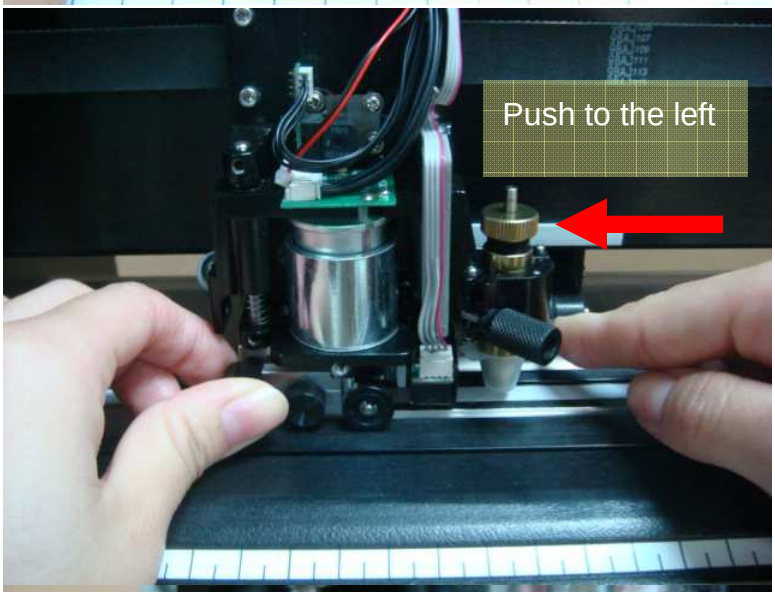


Figure 2-40

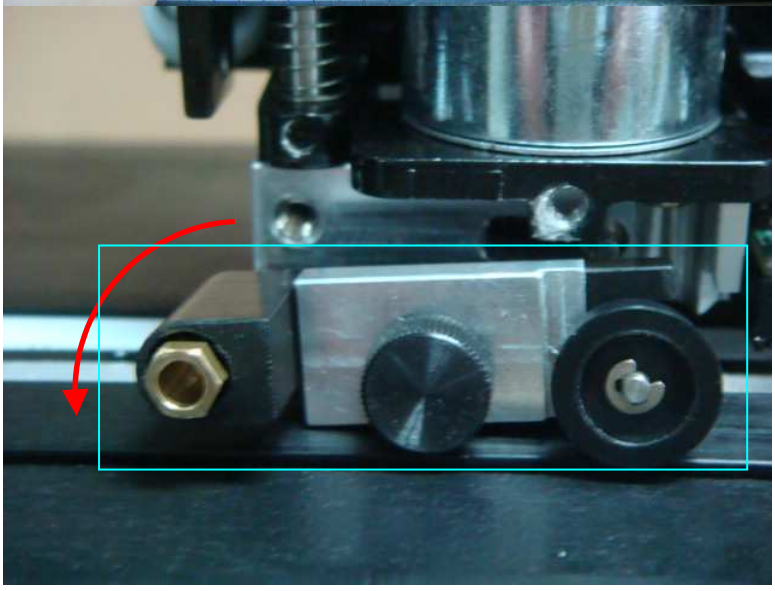


Figure 2-41

The Cut-off Unit will drop automatically once the board is pushed to the left (Figure 2-41).

Step 6 Remove the screw from the Cut-off Unit (Figure 2-42 and 2-43) and disassemble the Cut-off Blade Fixer by pulling it up vertically (Figure 2-44).

Figure 2-42

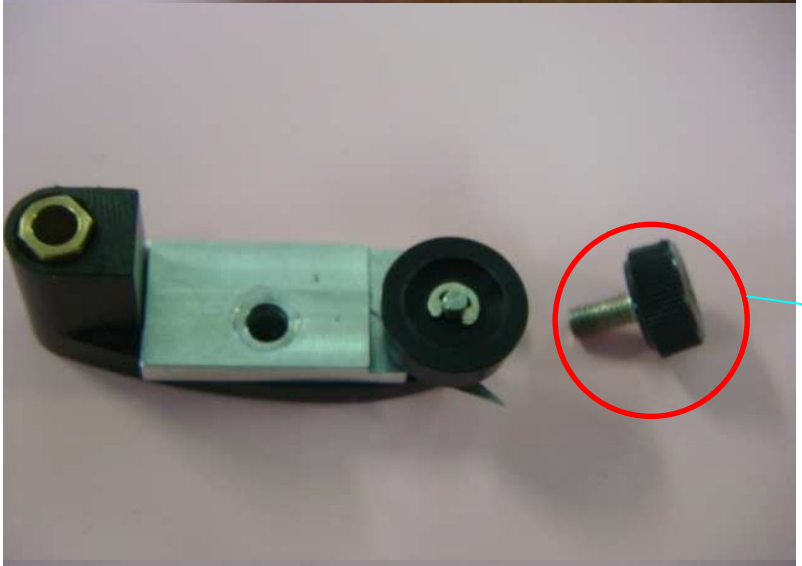


Figure 2-43

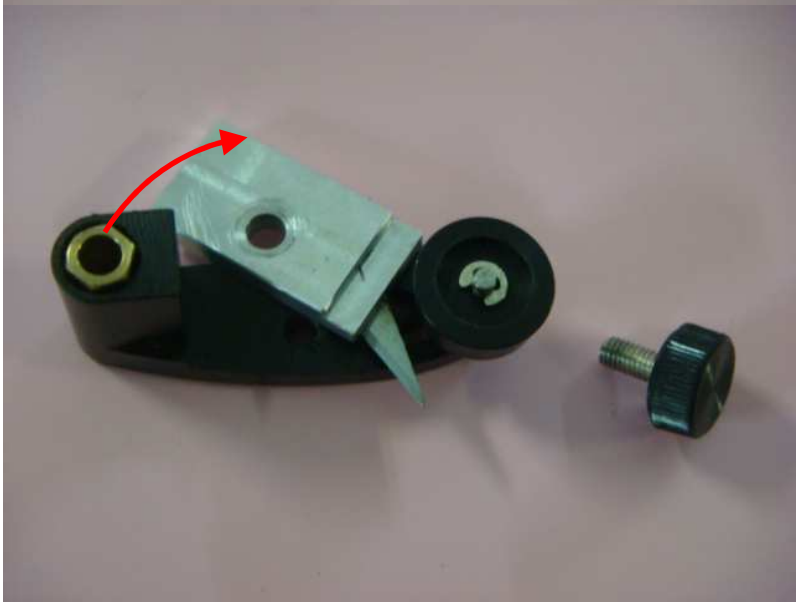


Figure 2-44

Step 7 Unscrew the Cut-off Blade from the Cut-off Blade Fixer, which will be attracted by the magnet on it, and replace it with a new Cut-off Blade along the track highlighted in red using tweezers (Figure 2-45 and 2-46).

Note: The Cut-off Blade is sharp so please handle with care.

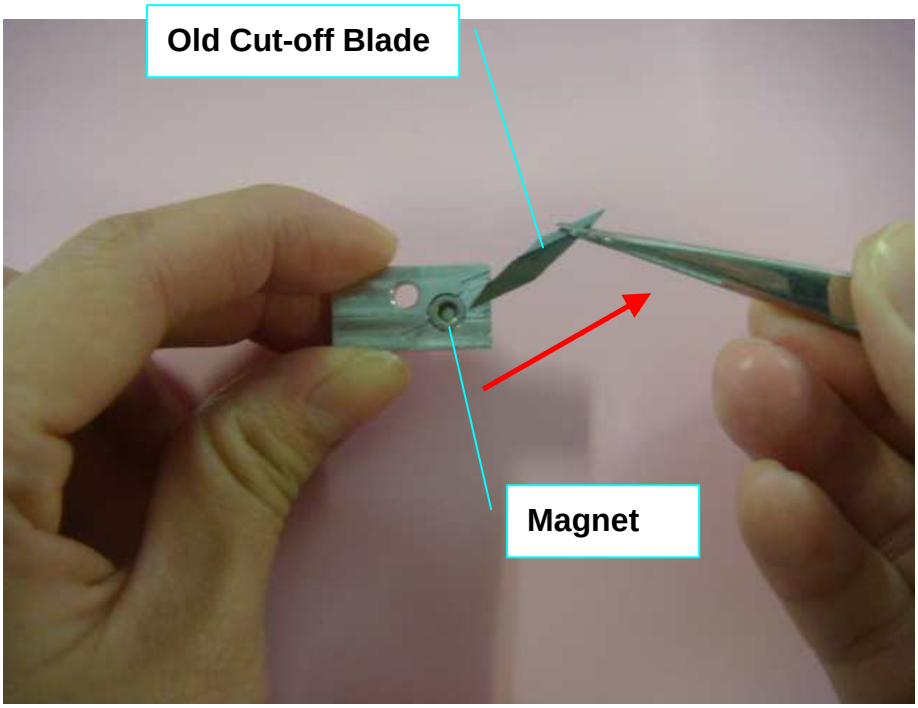


Figure 2-45

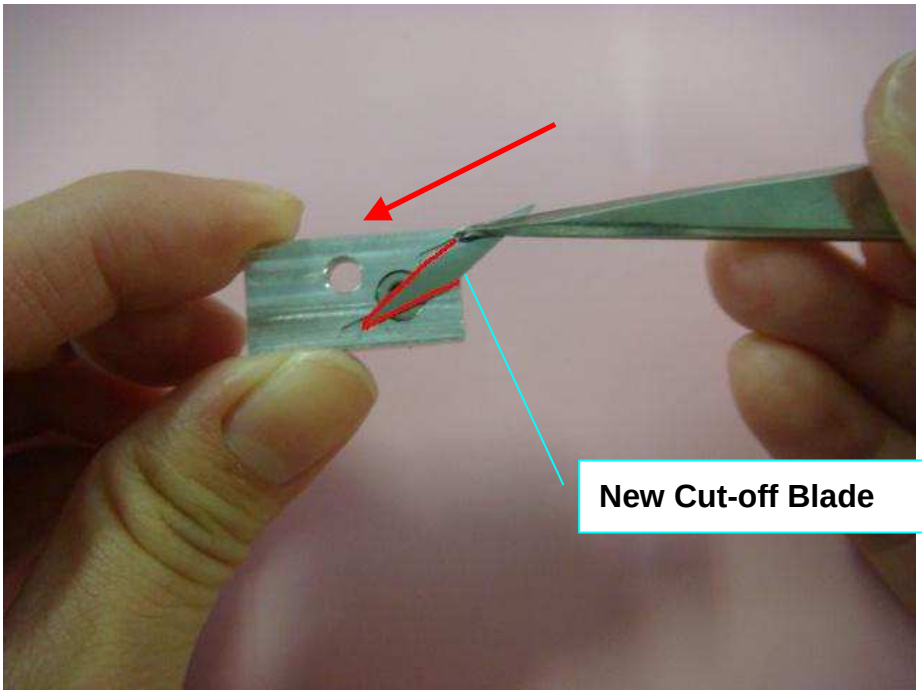


Figure 2-46

Step 8 Assemble the Cut-off Blade Fixer back to the Cut-off Unit by pushing the Holder downwards (Figure 2-47 and 2-48) and attach the screw (Figure 2-49).

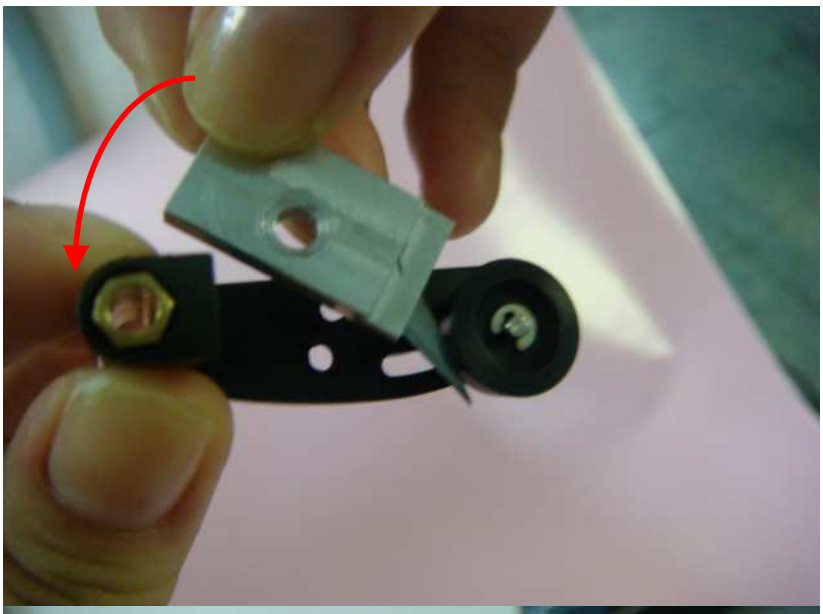


Figure 2-47

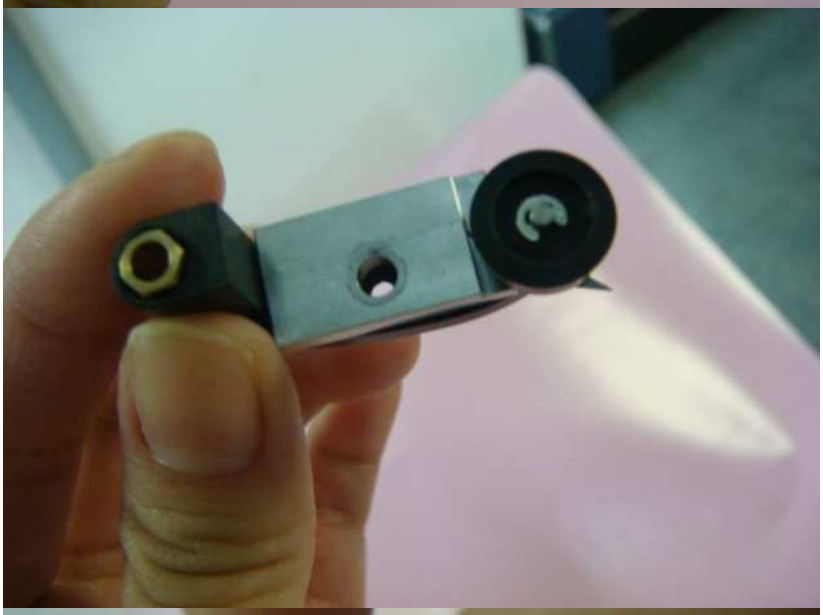


Figure 2-48

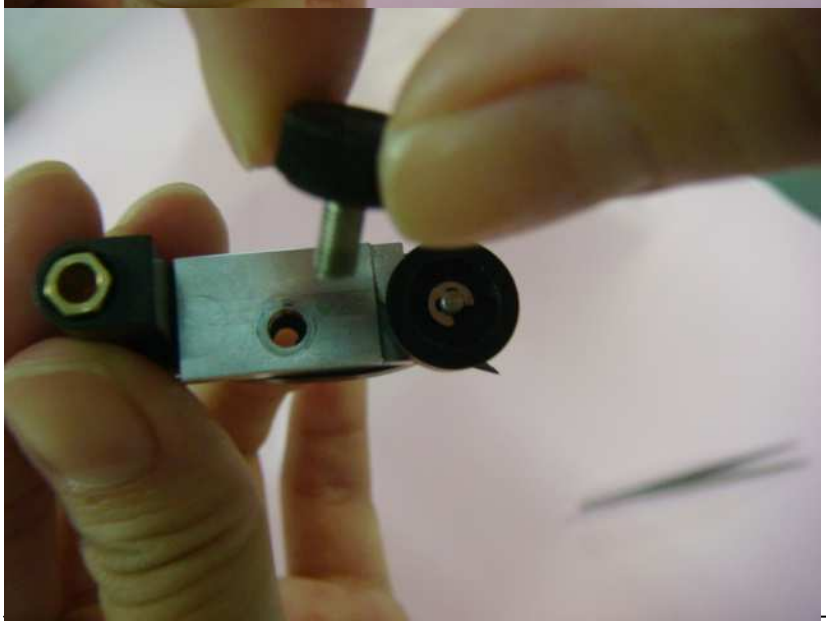


Figure 2-49

Step 9 Assemble the Cut-off Unit back to the Tool Carriage by pushing the metal board on the right while pushing the Cut-off Unit upwards (Figure 2-50 and 2-51) and attaching the screw (Figure 2-52).

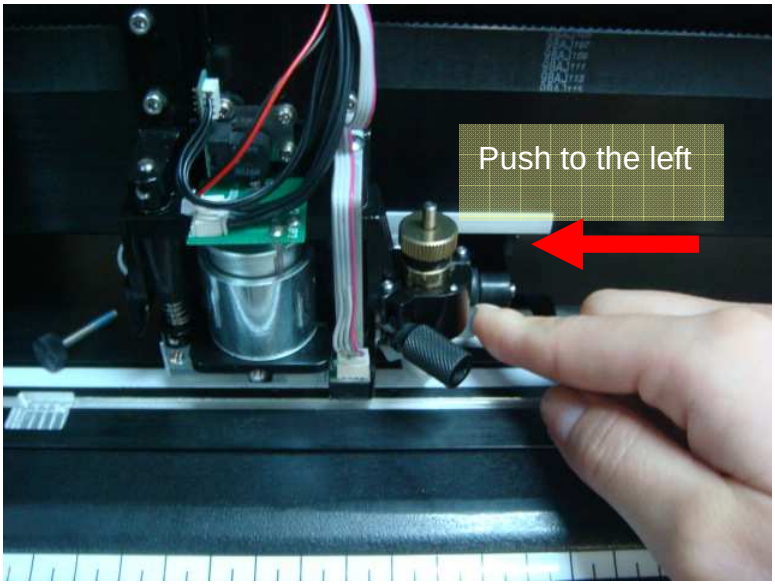


Figure 2-50

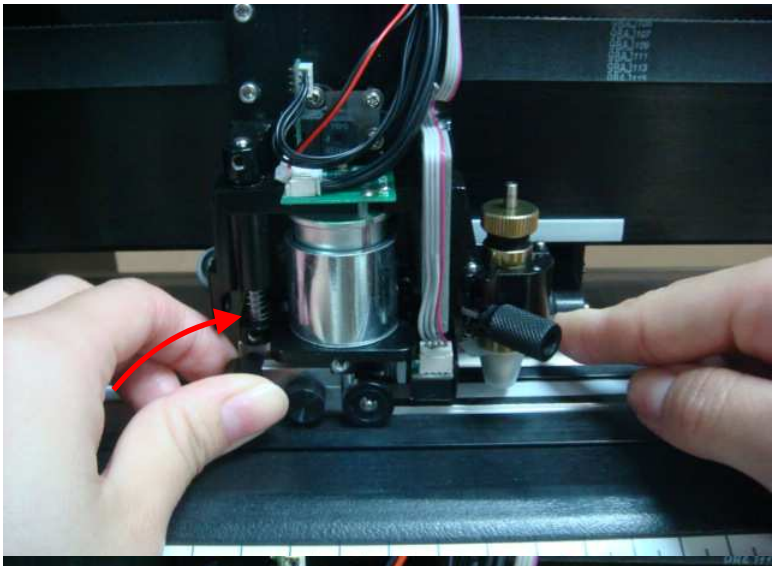


Figure 2-51

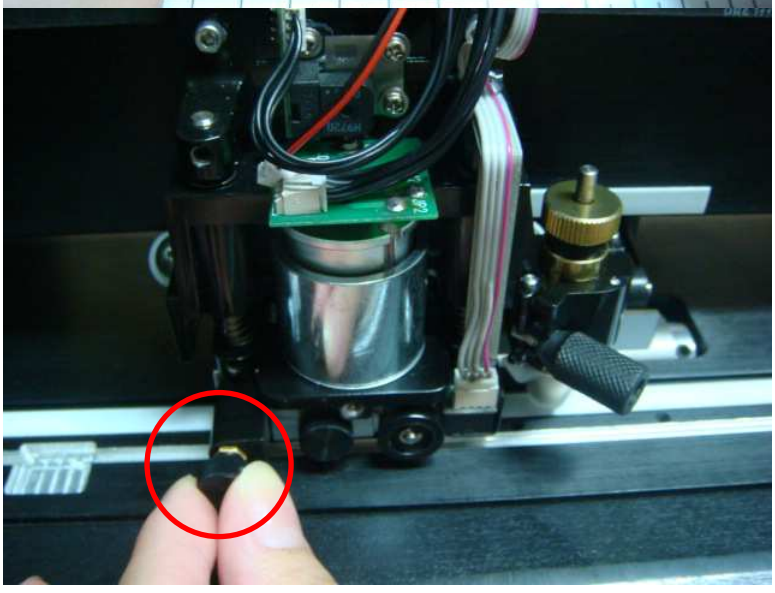


Figure 2-52

Step 10 Reconnect the wires at the white Wire Joint (Figure 2-53).

Figure 2-53

Step 11 Assemble the Tool Carriage Cover back to the Tool Carriage; please locate the end of the screw to the hole on the carriage before tightening the screw (Figure 2-54).

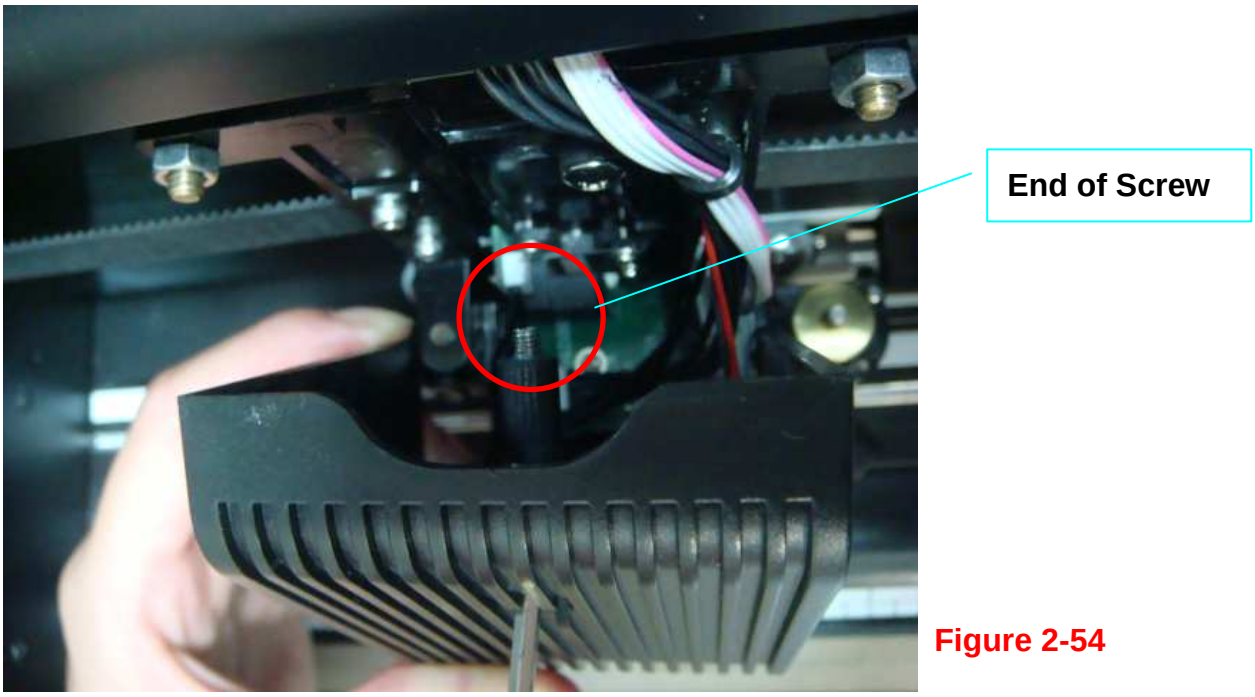
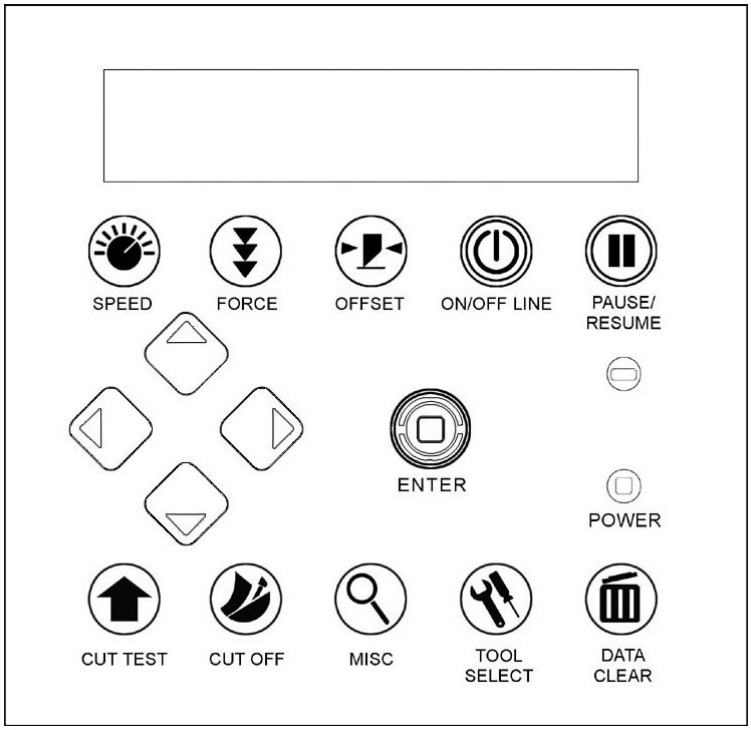


Figure 2-54

3. The Control Panel

This chapter describes the button operations with the LCM menu flowcharts of RX series. When the cutting plotter is ready for use as described in Chapter 1 & 2, all functions are under default parameters.

3.1 The Touch Key Panel



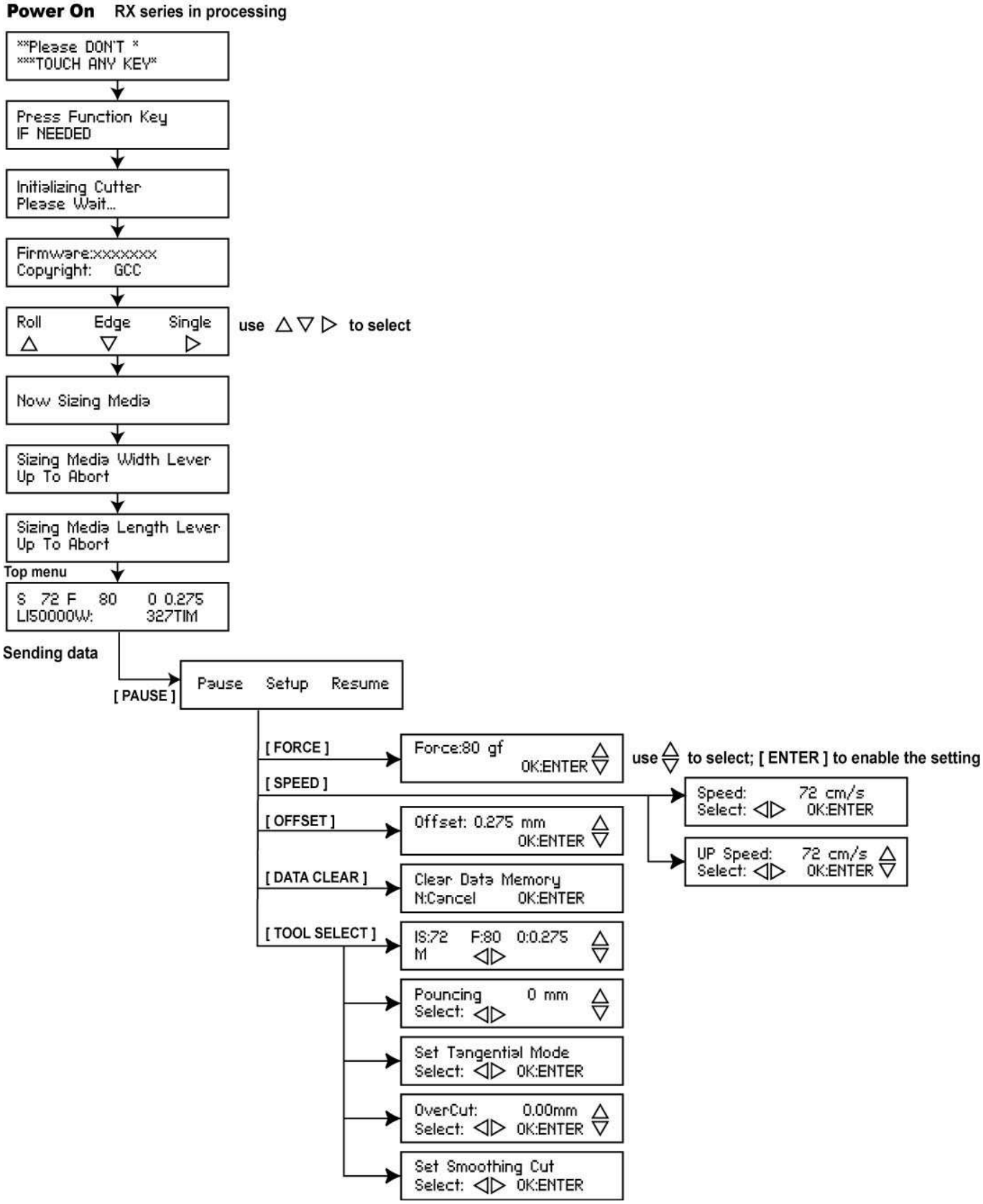
< Touch Key Panel on RX series >

Key	Function
LCD Screen	To display functions and error messages.
Power LED	To indicate the power status (light up: power on; light off: power off)
4 Arrow Keys	To move position, select function, or change setting.
ENTER	To set item or register the immediately preceding input value.
PAUSE/RESUME	To temporarily halt cutting process or to continue
ON/OFF LINE	To switch modes, stop cutting job, or abort changes of settings.
OFFSET	To adjust the value of blade's offset.
FORCE	To adjust the value of cutting force.
SPEED	To adjust the value of cutting speed and quality.
CUT TEST	To perform cutting test on different media.

CUT OFF	To cut off the material when the job is completed.
MISC	To set up functions.
TOOL SELECT	To select tools.
DATA CLEAR	To clear up internal memory.

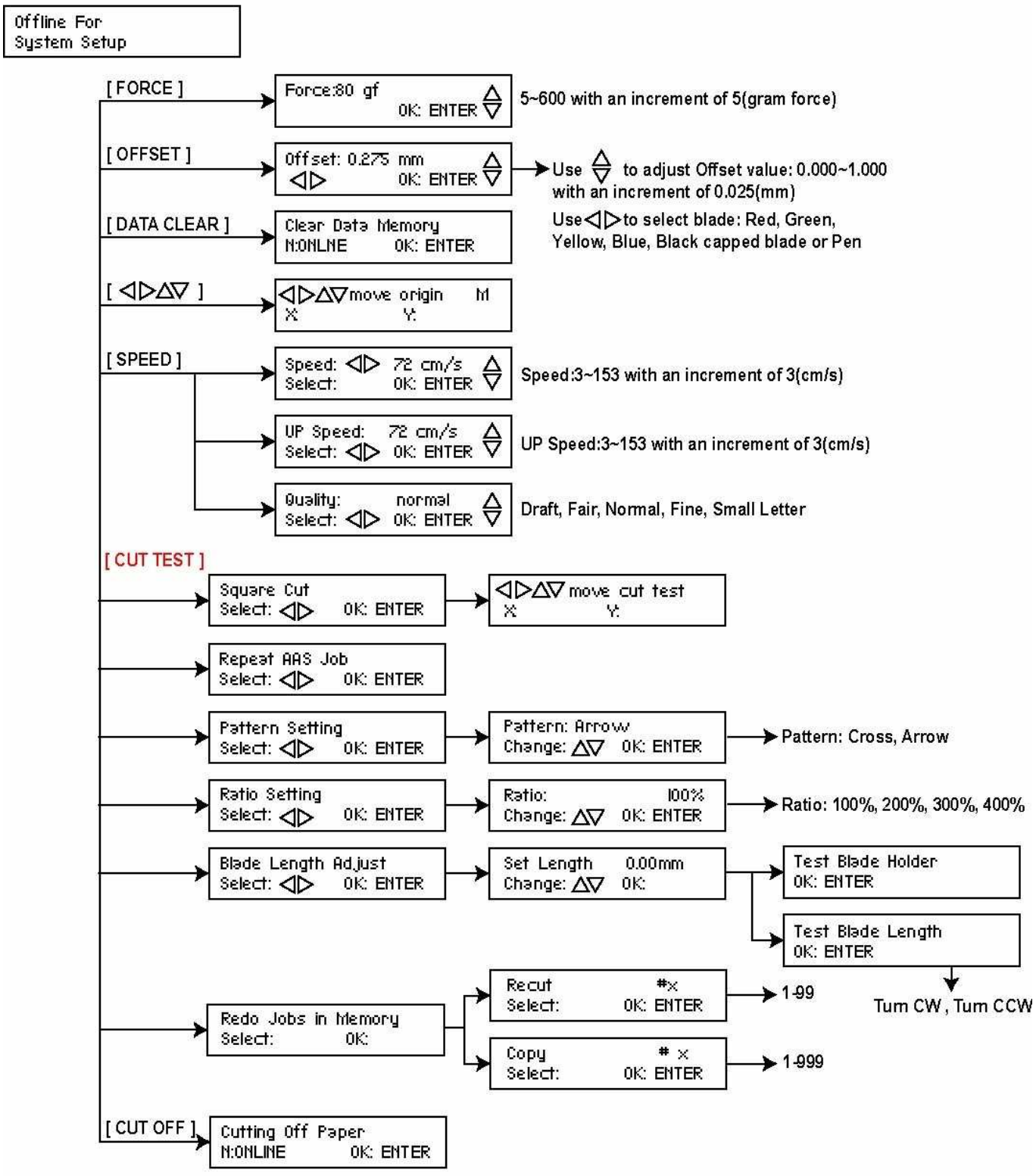
Please see details in “3.4 Menu Items”

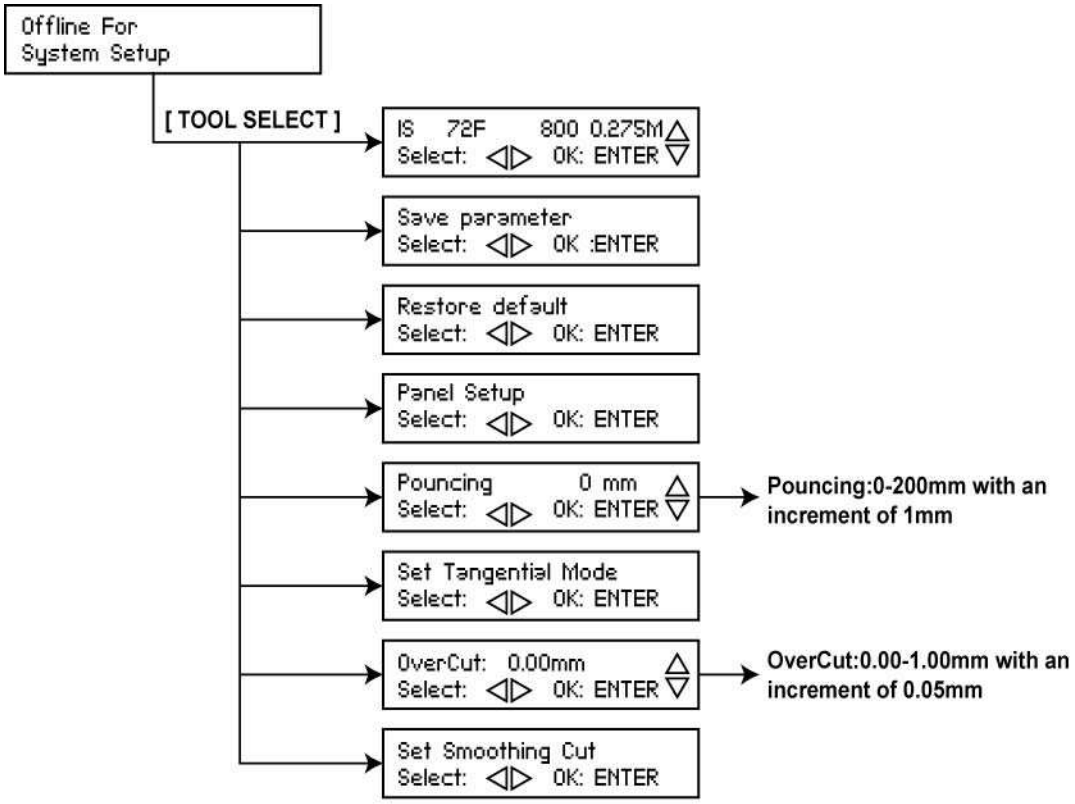
3.2 Menu in On-line Mode

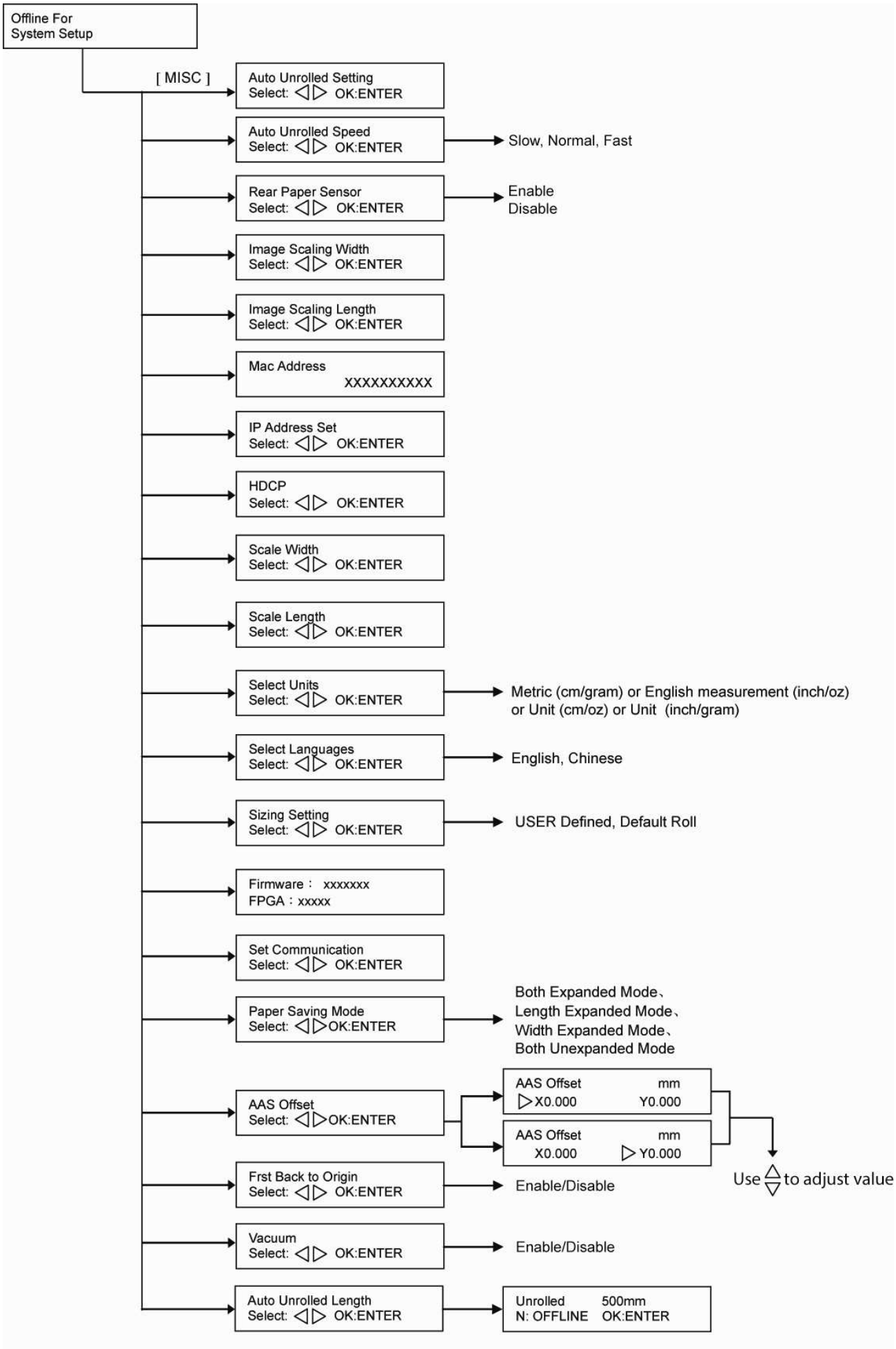


3.3 Menu in Off-line Mode

Press [ON/OFF LINE] to switch to the offline mode




Offline For
System Setup
[TOOL SELECT]
IS 72F 800 0.275M
Select: OK: ENTER
Save parameter
Select: OK :ENTER
Restore default
Select: OK: ENTER
Panel Setup
Select: OK: ENTER
Pouncing 0 mm
Select: OK: ENTER
Pouncing:0-200mm with an increment of 1mm
Set Tangential Mode
Select: OK: ENTER
OverCut: 0.00mm
Select: OK: ENTER
OverCut:0.00-1.00mm with an increment of 0.05mm
Set Smoothing Cut
Select: OK: ENTER


Offline For
System Setup
[MISC]
Auto Unrolled Setting
Select: ◁▷ OK:ENTER
Auto Unrolled Speed
Select: ◁▷ OK:ENTER
Slow, Normal, Fast
Rear Paper Sensor
Select: ◁▷ OK:ENTER
Enable
Disable
Image Scaling Width
Select: ◁▷ OK:ENTER
Image Scaling Length
Select: ◁▷ OK:ENTER
Mac Address
XXXXXXXXXX
IP Address Set
Select: ◁▷ OK:ENTER
HDCP
Select: ◁▷ OK:ENTER
Scale Width
Select: ◁▷ OK:ENTER
Scale Length
Select: ◁▷ OK:ENTER
Select Units
Select: ◁▷ OK:ENTER
Metric (cm/gram) or English measurement (inch/oz)
or Unit (cm/oz) or Unit (inch/gram)
Select Languages
Select: ◁▷ OK:ENTER
English, Chinese
Sizing Setting
Select: ◁▷ OK:ENTER
USER Defined, Default Roll
Firmware： xxxxxxx
FPGA：xxxxx
Set Communication
Select: ◁▷ OK:ENTER
Paper Saving Mode
Select: ◁▷OK:ENTER
Both Expanded Mode、
Length Expanded Mode、
Width Expanded Mode、
Both Unexpanded Mode
AAS Offset
Select: ◁▷OK:ENTER
AAS Offset mm
▷X0.000 Y0.000
AAS Offset mm
X0.000 ▷Y0.000
Use △▽ to adjust value
Frst Back to Origin
Select: ◁▷ OK:ENTER
Enable/Disable
Vacuum
Select: ◁▷ OK:ENTER
Enable/Disable
Auto Unrolled Length
Select: ◁▷ OK:ENTER
Unrolled 500mm
N: OFFLINE OK:ENTER

3.4 Menu Items

Below describes the functions of menu items

Menu or Key	Function	Setting	Default
--- Media sizing ---			
Roll	To measure media width.	Maximum Media Length 150M	
Edge	To measure media width and pull the media back till the front paper sensor open.	Maximum Media Length 150M	
Single	To measure media width and length.	Maximum Media Length 10M	
--- POWER ---			
	To indicate the power status.		
[Arrow Keys]			
	1. To move the tool carriage position on X or Y axis. 2. To select functions or change values of settings.		
[ENTER]			
	1. The displayed parameters will be saved automatically. 2. To set a new origin at the present tool carriage position. In “offline” mode, moving the tool carriage to desired position by [Arrow Keys], then press [ENTER] key to set a new origin. While moving with the parameters of XY-axes displayed, press [MISC] key will enable fine-tune movement; press [MISC] key again to disable the function.		
[PAUSE/RESUME]			
	To temporarily halt the cutting process. To resume the process by press [Pause/Resume] key again.		
[ONLINE/OFFLINE]			
	1. To switch between online mode and offline mode. 2. To stop the cutting job or abort the change of setting. Once press this key, the cutting job will be terminated immediately and cannot be resumed.		
[OFFSET]			
	To set or modify the distance between the blade tip and the center axis. Through left or right arrow keys, users can select the blade used (Red, Green, Yellow, Blue, Black capped blade or Pen) then adjust the offset values after pressing Enter if necessary	0.000~1.000mm	0.275mm
[FORCE]			
	To set or modify the value of tool force. When the cutting force exceeds 450g, the maximum cutting speed would be 30cm/sec and the cutting quality would be Small Letter Mode and while the cutting force is 300g-449g, the maximum cutting speed would be 30 cm/sec and the cutting quality would be Fine Mode.	5~600gram; 5 gram/per step	80 gram
[SPEED]			
Speed	To set or modify tool speed at horizontal moving. When the cutting speed exceeds 72 cm/sec, the cutting quality would be Normal Mode.	3~153cm/sec; 3cm/sec per step	72cm/sec
Up Speed	To set or modify tool speed at vertical moving.	3~153cm/sec; 3cm/sec per step	72cm/sec

Cutting Quality	To set or modify cutting quality. While cutting small letter, set as “Small letter”. While cutting in high speed, set as “Draft”. For normal operation, set as “Normal”.	Draft, Fair, Normal, Fine, Small Letter	Normal
[CUT TEST]			
Square Cut	To perform a cutting test at present blade position. For more information, please refer to “4.3 Adjusting the Cutting Force and Offset” to adjust blade force and cutting speed.		
Repeat AAS Job	To repeat AAS jobs automatically without having to operate on the computer side. Please be noted that this feature is mainly applied to the Single paper mode; please ensure a new piece of material you wish to apply this feature on is loaded and the origin repositioned to the first registration mark before starting. When the first AAS job repeat completes, the user will be offered the choice of “Repeat AAS Job Again”, please press ”Online/Offline” to return to the main menu.		
Pattern Setting	To provide two patterns for cut test Note: It is recommended to select “Cross” if you are working on thick pieces of materials.	“Arrow” and “Cross” patterns	“Arrow”
Ratio Setting	To adjust the size of the pattern	100%, 200%, 300%, 400%	100%
Blade Length Adjust	To adjust the length of the blade Note: 1. Keep your blade length as 0 before you start adjusting. 2. Test the blade holder first and then test the blade length by pressing ENTER. 3. Keep the blade holder at the same position when you perform blade holder and blade length tests. 4. When blade holder and blade length tests are finished, the screen will show you to what degree (the unit of the value following “CW” or “CCW” is “circle”) and in which direction [CW (clockwise) or CCW (counterclockwise)] you should turn the adjustment knob. EG, Turn CW 0.5 is telling you that you should turn the knob for half a circle clockwisely. 5. The value on the screen will be 0.0 when the blade length is perfect and no more adjustment needs to be made. You will be prompted with the message below: Adjustment completes and you may start cutting at this point.	0.00mm-5.00mm	0.00mm
Redo Jobs in Memory	To redo the cut test jobs saved in memory by recutting or producing cut test copies	Recut (number of jobs: 1-99) Copy (number of jobs: 1-999)	Recut
[DATA CLEAR]			
	To clear up buffer memory.		
[TOOL SELECT]			
Set Smoothing Cut	To enable smooth-cutting function.		Enable
Over Cut	To generate an overcut to facilitate weeding.	0.00mm-1.00mm 0.05mm/per step	0.00mm

Set Tangential Mode	To enable the tangential-cutting mode for thicker media types and small letter cuts. Note: while the Offset value setting at 0.000 mm, “Set Tangential Mode” will automatically be disabled.		Enable
Pouncing	To make perforated patterns. * In order to use this function, Pouncing tool must be installed. * Before start pouncing, place pouncing strip on top of the cutting pad to protect the cutting pad. * Set the value as 0 mm to disable the pouncing mode. * Pouncing tool is an optional item.	0~200mm	0mm
Panel Setup	Accept setup command: To accept commands of the Force, Speed, Cutting Quality, and Offset only via software.		Accept setup command
	Control panel only: To accept commands of the Force, Speed, Cutting Quality, and Offset only via control panel of the cutter.		
Restore Default	To turn all parameters of the menu items to factory-default settings.		
Save Parameter	To save pattern(s) of cutting parameters for later use. There are 4 sets of parameters saved in the panel. Use Page Up and Page Down keys to select the set of parameters you wish to adjust, press “Enter” to confirm (the number shown on the upper left corner will change accordingly). Each set of parameters includes Speed, Force, Offset, Up Speed, Quality and Scaling though the latter three will not be displayed in this section. To adjust or check individual parameters, go back to the responding keys on the panel and press “Enter” to confirm.	Patterns1~4	Pattern 1
[MISC]			
Auto Unrolled Media	To avoid paper jam and motor crash by automatically unroll media (50cm and up) before cutting while enabled. . * Auto-unroll only effects on roll/edge media. * Using Single mode to size media will disable this function automatically. * If the length of the rolled media is less than 2 meters or the weight is light, it is recommended to set this mode disabled.		Enabled
Auto Unrolled Speed	To adjust the unrolled media speed.	Slow, Normal, Fast	Slow
Rear Paper Sensor	To detect if the rear paper sensor is covered to determine the following process; when it is enabled, the cutter will detect if the material has covered the rear paper sensor under the Roll and Edge mode; when disabled, the rear paper sensor will not be functioning. Note: Rear paper sensor only functions under “Roll” and “Edge” mode.	Enable Disable	Enable
Image Scaling Width	To adjust the image scale of media length and width that may cause by the thickness of the media. The Numerator is the ideal length, and the Denominator is the actual length measured from the resultant. For example, cutting a line with 500.0 mm length. The procedure as follows: 1. Press the [LEFT ARROW] to choose the Numerator and select 500.0 mm, 2. Cut the length by sending a graph file, 3. Measure the length then use the [RIGHT ARROW] key to choose the Denominator, then		
Image Scaling Length			

	4. Press [UP ARROW /DOWN ARROW] to change the values of the actual length.		
Scale Width Scale Length	Fixed scaling, for maintenance only.		
MAC Address	Shows the MAC Address of your cutting plotter.		
IP Address	Shows the IP Address of your cutting plotter.		
DHCP	Shows your IP address for TCP/IP Configuration		Disable
Select Units	Provide four-unit systems for users convenient.	cm/gram; inch/oz; cm/oz; inch/gram	Metric
Select Language	To select displayed languages on LCM panel in English, Spanish, Italian, Deutsch, Japanese, Portuguese, Polish, Turkish or French.		English
Sizing Setting	Allows user to set the sizing settings. If set to user defined mode, the user will be asked to select the size setting every time the machine is turned on. If set to Default Roll, Roll type sizing will be performed whenever the machine is turned on.	User Defined /Default Roll	User Defined
Firmware Version	To display the version number of Firmware and FPGA code, varying from model to model		
Set Communication	To build up the communication between host computer and cutter. *Baud Rate* is to determine the speed of data transmission. *Data Bits* refers to the size of one block of data. *Parity* is used to check if data was revived correctly or not. 9600, n, 7, 1, p 9600pbs, 7 Bits with NO Parity 9600, o, 7, 1, p 9600pbs, 7 Bits with ODD Parity 9600, e, 7, 1, p 9600pbs, 7 Bits with EVEN Parity 9600, n, 8, 1, p 9600pbs, 8 Bits with NO Parity 9600, o, 8, 1, p 9600pbs, 8 Bits with ODD Parity 9600, e, 8, 1, p 9600pbs, 8 Bits with EVEN Parity 19200, n, 7, 1, p 19200pbs, 7 Bits with NO Parity 19200, o, 7, 1, p 19200pbs, 7 Bits with ODD Parity 19200, e, 7, 1, p 19200pbs, 7 Bits with EVEN Parity 19200, n, 8, 1, p 19200pbs, 8 Bits with NO Parity 19200, o, 8, 1, p 19200pbs, 8 Bits with ODD Parity 19200, e, 8, 1, p 19200pbs, 8 Bits with EVEN Parity		
Paper Saving Mode	To save media by four different modes: 1. Length expanded mode 2. Width expanded mode 3. Both expanded mode 4. Both unexpanded mode		Length expanded mode
AAS Offset	To set or modify AAS offset value. You can refer to “5.3 Printer Test” for more details.		
First Back to Origin	To enable the carriage back to the previous origin; when “Enable” is selected, the carriage will not go back to the previous origin while the selection of “Disable” allows the carriage to do so.	Enable Disable	Enable
Vacuum	To help improve tracking and cutting accuracy by turning on the fans. If you turn off the vacuum system, the fans will remain inactive during cutting or plotting.	Enable, Disable	Enable
Auto Unrolled Length	To adjust the unrolled media length.	500-3000 mm	500 mm
[CUT OFF]			
	To cut off the material automatically when the job is completed,		

	you need to use the arrow keys to move the carriage to the position you want to cut off the material manually and then press the “cut off” button.		

4. Operation

4.1 Media Loading

4.1.1 Loading the Sheet Media

To load the media properly, please follow the procedures listed below:

Step 1

Use the lever on the upper right side of the cutting plotter to raise or lower down pinch rollers. Pull the lever forward until it makes a clicking sound then the pinch rollers are raised (Figure 4-1).

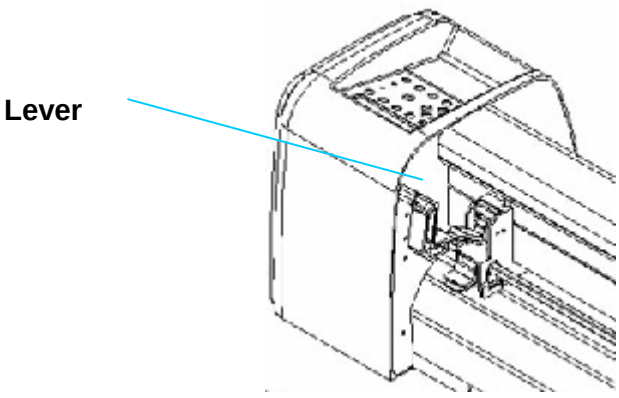


Figure 4-1

Step 2

Load your media on the platen and slide it under the pinch rollers from either the front side or the backside. The **alignment rulers** on the platen extension will help you to adjust the media precisely.

Note:
Be sure that the media must cover the paper sensors on the platen when loading the media. At least one of the two paper sensors (Figure 4-2) should be covered. Once the media covers the sensor, the cutting plotter will size the media width and length automatically.

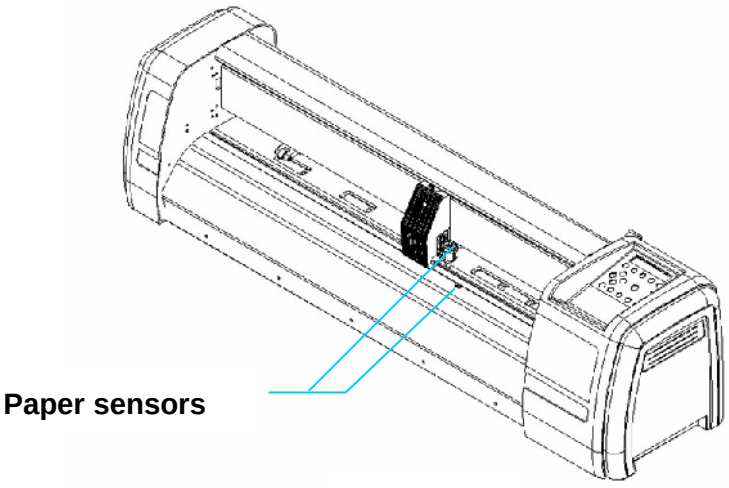


Figure 4-2

Step 3

Then move the pinch rollers manually to the proper position. Be sure the pinch rollers must be positioned above the grid drum. The **white marks** on the top trail will remind you where the grid drums are (Figure 4-3).

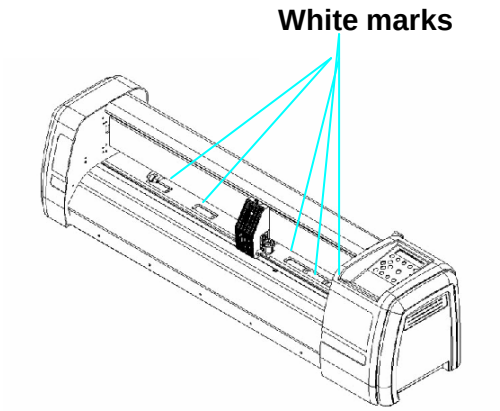


Figure 4-3

Step 4

Push the lever backward to lower down the pinch rollers.

Step 5

Turn on the power, the tool carriage will measure the size of the media automatically. And the plotting cutter begins to work.

Note:

1. Always adjust the position with the pinch roller raised.
2. Move the pinch roller by applying force at the rear portion of the pinch roller support.
3. Do not move it by holding its front rubber roller (Figure 4-4).

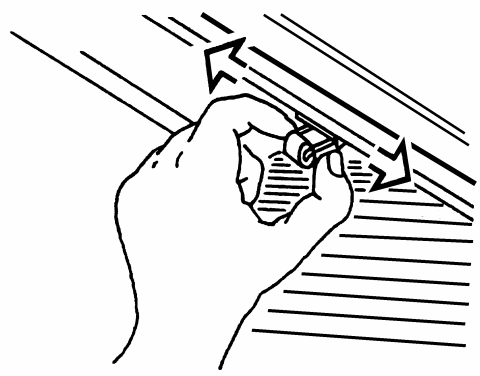


Figure 4-4

Note:
Please pull up the bottom of all pinch rollers (Figure 4-5) before the lever is pushed backwards to ensure accurate media width detection.

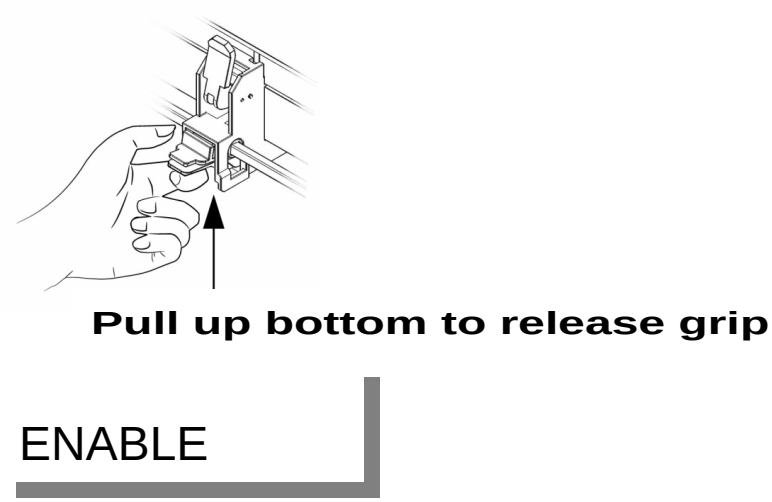
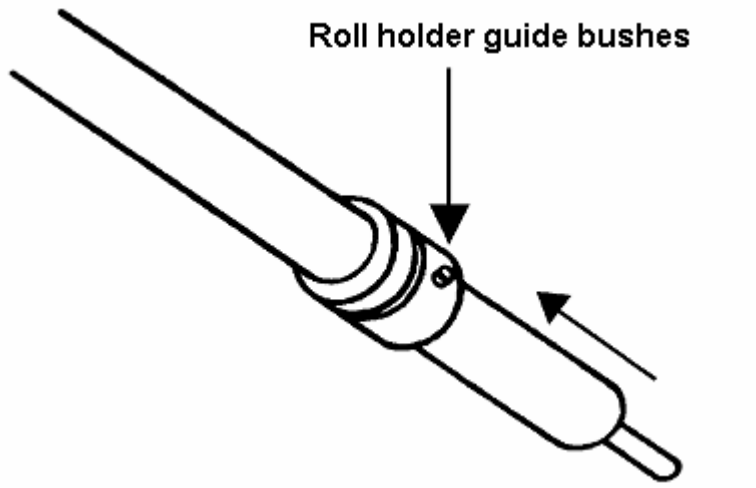


Figure 4-5

4.1.2 Loading the Roll Media

Step 1

Put the roll holder guide bushes on two roll holders (Figure 4-6).



Step 2

-- Option A (Use the media flanges) (Recommended)

Insert a roll media flange at the end of each roll media and tighten the thumbscrew until the roll media is firmly gripped (see Figure 4-7).

Then put the roll media on the roll holders. Adjust the position of the roll media ensure that media flanges are able to run in the grooves of roll holder guide bushes (Figure 4-8)

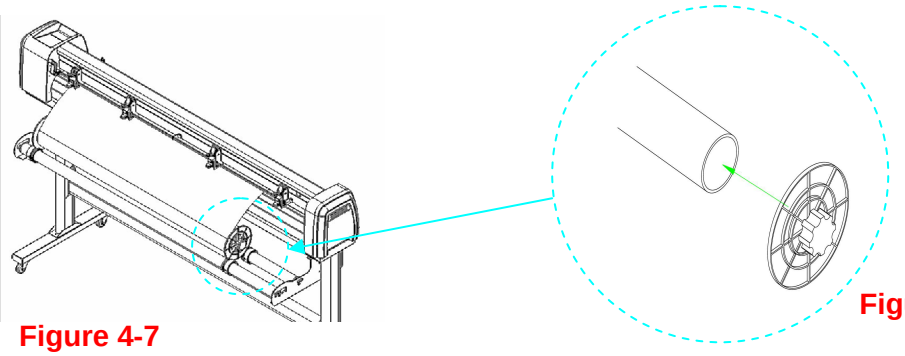


Figure 4-7

Figure 4-8

-- Option B

Insert the two roll holders into the roll media support set then place the roll media directly between the two roll holders (Figure 4-9).

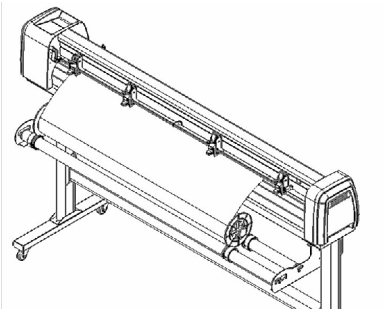


Figure 4-9

Step 3

Load the media on the platen. Please refer to “4.1.1 Loading the sheet media”. After loading the roll media, flatten the media on the platen and hold the front edge of the roll media firmly (Figure 4-10).

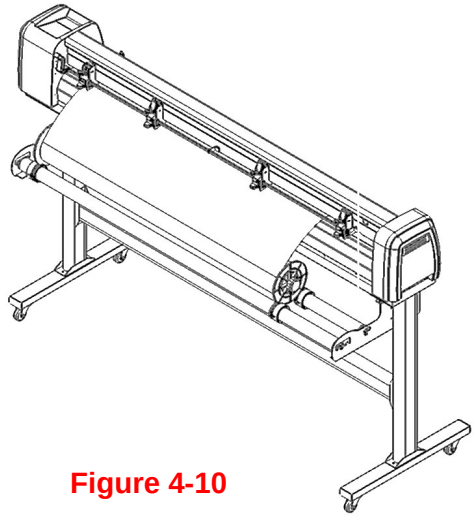


Figure 4-10

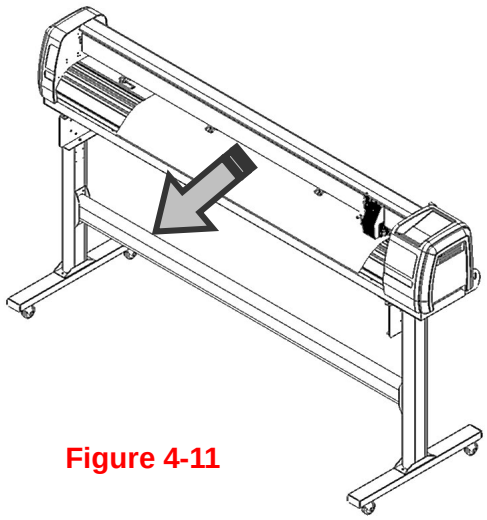


Figure 4-11

Step 4

Turn the roll downward to make an equal tension across the media (Figure 4-11)

Note :
Make sure that the media tension is equally distributed from left to right. If the media were not tightened enough against the platen, it would cause tracking problems!

Step 5

Move the pinch rollers to the appraise location and note that the pinch rollers must be positioned above the grid drums.

Step 6

Push the lever backward to lower down the pinch rollers.

Step 7

Fix roll holder guide bushes on the roll holder to secure the roll media.

Step 8

Turn on the power switch and select Roll, Edge or Single mode appropriate for one time setup, or set to Default Roll in Sizing Setting and Roll type sizing will be performed when the machine is turned on.
Then the cutting plotter is ready to work.

Step 9

Use the reverse steps to remove the media.

4.2 Tracking Performance

In order to achieve the best tracking performance for a long plot, we recommend some significant media loading procedures described as follows:

If the media length is less than 4 meters, leave the margin of 0.5mm—25mm in the left and right edges of the media (Figure 4-12).

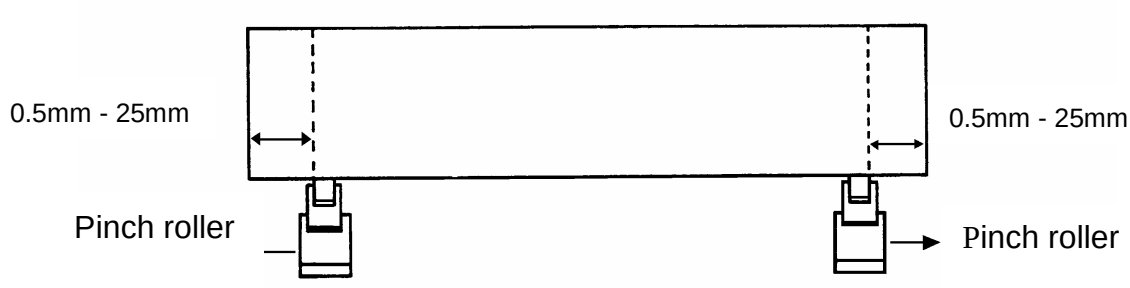


Figure 4-12

If the media length is greater than 4 meters, leave at least 25mm margin on the left and right edges of the media (Figure 4-13).

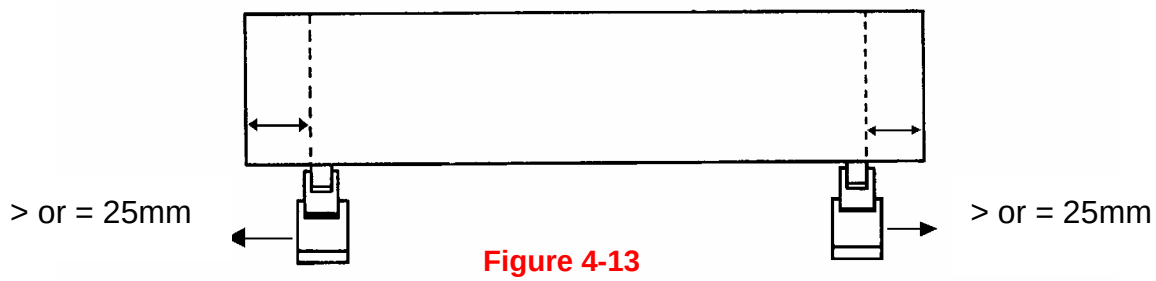


Figure 4-13

Please refer to the paragraph “4.5 How to Make A Long Plot” for more details.

4.3 Cutting Force and Offset Adjustment

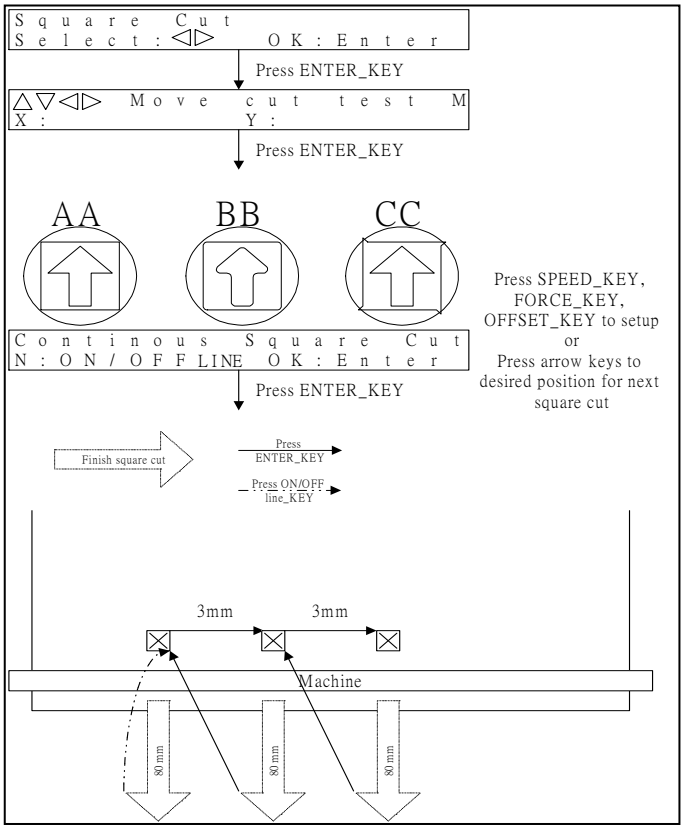
Before sending your designs for cutting, you may perform a “cut test” to generate satisfactory cutting results. The “Cut Test” should be repeated until the appropriate cutting conditions for the media are discovered.

After sizing the media, press [CUT TEST] button to select the “square cut”, and press [ENTER KEY] to confirm.

The default cutting force and offset value of the cutting test are 80gf and 0.275mm respectively. Press [ARROW KEY] to move the tool carriage to the position where you like. Then, press the [ENTER KEY] to perform Cut Test.

Note: At the same time, the new origin is also set at the cutting test position.

When the cutting test is completed, a pattern appears. Peel off the pattern to see if it can be easily separated from the media base. If yes, the setup tool force is appropriate. If not or cut through the back paper, press [FORCE KEY] to adjust the tool force until an optimum force is obtained (Figure 4-14).



If the pattern appears to be BB or CC layout, press [OFFSET KEY] to adjust the offset value until AA pattern discovered.

Figure 4-14

4.4 How to Cut 3mm Letters

To obtain good quality output, narrow media is recommended. However, if wide media is used, you should:

1. Position two pinch rollers as close as possible to both edges of the cutting area.
2. Make sure the loaded media is held flat with equal tension across the platen.
3. Suggested operation settings:

   Tool force: 55 gf. (or depending on the material)
   Cutting speed: 45-50 cm/sec
   Tool up speed: 45-60 cm/sec
   Smooth cut: Disable
   Quality: Small Letter

4.5 How to Make a Long Plot

When you are making a long plot with a roll of heavy and wide vinyl, paper you need to use the “AUTO UNROLL MEDIA“ function. The following parameter settings are to help users get the best cutting quality. The actual output quality may vary when using different kind of materials

1. If the length of graphic is between 3m and 5m, the cutting speed is better slower than 72cm/sec and the cutting quality is set as Normal.
2. If the length is longer than 5m or if the material type is difficult to cut, it is better to further slow down the cutting speed.
3. After loading the roll media all pinch rollers are raised at this stage, flatten the media on the platen and hold the front edge of the roll media firmly (Figure 4-15).

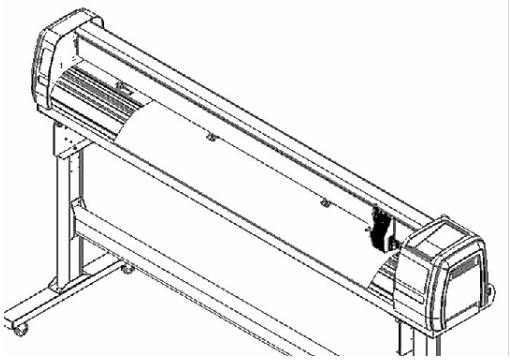


Figure 4-15

Then turn the roll downward to make an equal tension across the media (See Figure 4-16)

Make sure that the media tension is equally distributed from left to right. If the media is not tight enough against the platen, it will cause tracking problems.

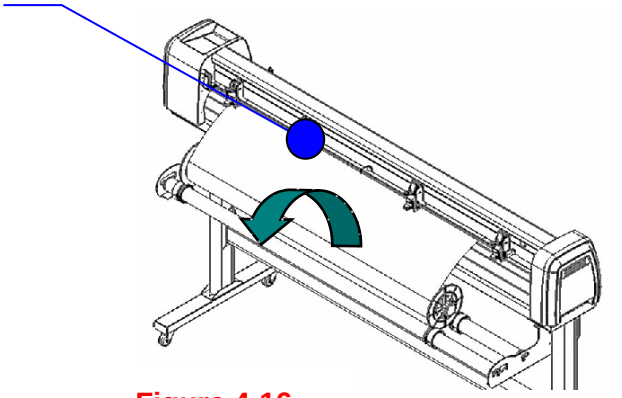


Figure 4-16

4. Engage pinch rollers.
5. Fixes roll media guide bushes on the roll holder to secure the roll media.
6. The protrusion length of the blade should be longer than the thickness of the vinyl. (Please check the “Blade Specification: About the Tool” in Appendix.) After you notice all the above, you’ll enjoy your gigantic signs production!

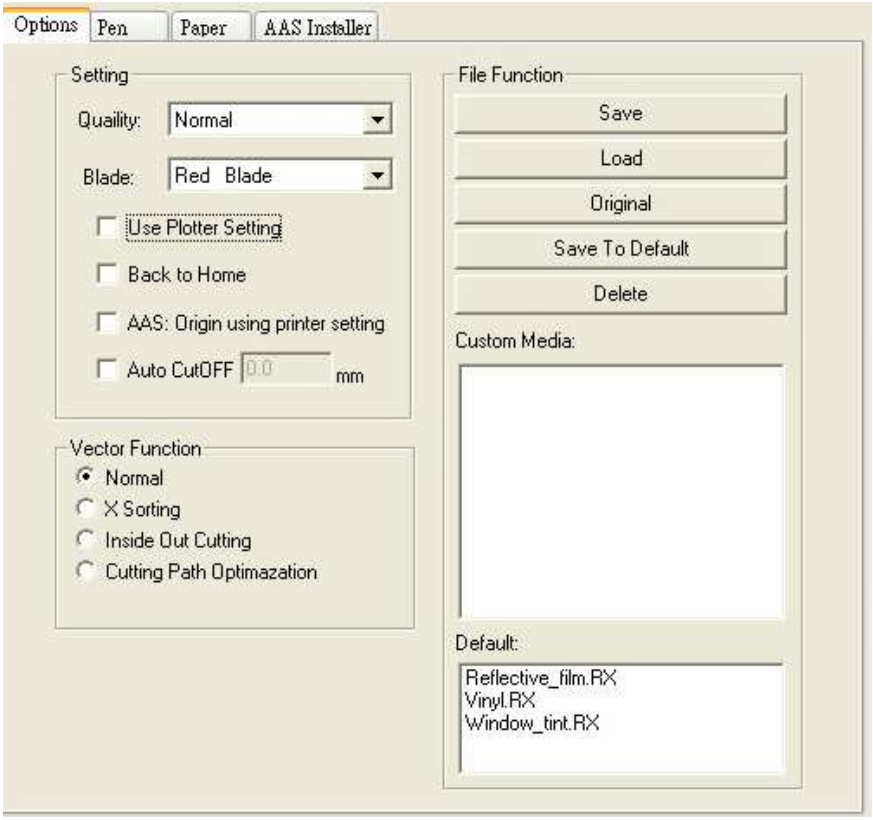
4.6 When Completing the Cutting Job

After completing the cutting job, raise the sheet-loading lever, and then remove the material. You can also cut off the finished job by the Safe Blade (a standard accessory) along the knife guide. (Figure 4-17). Or move the carriage to the position you want to cut off the material and then press the “CUT OFF” button on the control panel. The material will be cut off automatically.

Figure 4-17

4.7 RX series Print Driver setting

4.7.1 RX series Print Driver setting > Option Page



Setting: You can adjust the following settings, depending on your application or results you would like to achieve.

Quality:

[Slower speeds / higher quality - Faster speeds / lower quality]

The Cutting Quality setting function allows you to adjust and balance vector mode's quality and speed settings based on your specific job. Draft Mode offers the highest output speed, sacrificing quality. Whereas Small letter Mode offers the highest quality, sacrificing output speed. Keep in mind that speed and quality are usually at a tradeoff.

Blade:

Choose the blade type used for this job.

Use Plotter Setting:

The parameter settings will be set according to those set from the control panel.

Back to home:
The carriage will return to the original position when this option is selected.

Auto Cut off:
This feature allows users to set the cutter to cut off the media after the completion of each job making it easy to set up an unattended workflow for mass production. The material will be cut off automatically once you click the Auto Cut off function on GCC driver and set the distance between the cutting image and the cut off line.

The default is 10mm meaning the material will be cut off after 10mm of the image. The value for the cut off function is adjustable. You can set the value between 0mm-100mm depending on your need.

Vector Function
Normal:
This is the default Vector Function setting. The cutting order depends on the order of the graphics created in the application software.

X sorting:
The cutting order is based on the next closest object on the x-axis from the origin.
The cutting order of the sample below will be 1,2,3,4 (please refer to figure 4-20).

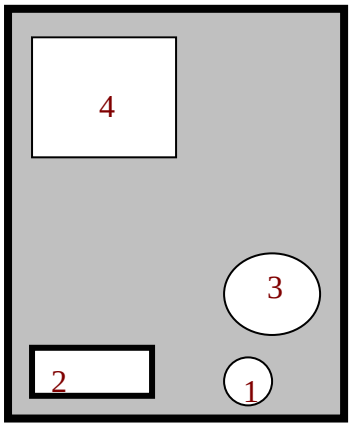


Figure 4-19

Inside Out Cutting:
When performing a vector cutting job in which your image has one vector cut area enclosed within another vector cut area, select the Inside-out Sorting mode. This mode will automatically

instruct the print driver to process the inside vector image and moving outwards. This setting will always automatically direct the cutter to cut from the inner most vector shape and move outwards.

Cutting Path Optimization:
This is a setting that will minimize your process time. When selected, the print driver will analyze your image and automatically determine the most efficient processing path to process your image.

File Function (Option Page):
The file function section allows you to manage various cutter parameters. This section is useful when performing repeated jobs on a variety of objects, allowing you to save your frequently used cutter parameters and load them in the future.

- Custom Media: This section lists the files for the parameter settings that you have recently created and worked. You can save more than 50 files to simplify your cutting job.

- Default: This section contains the reference settings that are applicable with the verified materials to achieve the best cutting results. Please note that the setting value might need to be adjusted according to different suppliers of materials.

- SAVE: This function will save current print driver parameter settings to a file under the specified location on your computer. (Saved parameter setting files will be tagged with the RX series extension)

- LOAD: This function allows you to load previously saved print driver parameters.

- ORIGINAL: This function will load the print driver's original factory parameter settings.

- SAVE TO DEFAULT: This function allows you to save your current print driver parameters as the default startup settings.

- DELETE: This function will delete the file you select from the Custom Media section, whileas the settings in Default section cannot be deleted. Please note the delete function only removes the file from the Custom Media section, it does not remove the .RX file from your hard drive, if you wish to completely remove the file from your hard disk, and you will have to manually delete the file from your operating system.

NOTE

If you are using Windows 2000 or XP as your operating system, then make sure you log in with an administrator or administrator-rights account in order to properly save cutter parameter settings.

4.7.2 RX series Print Driver setting > Pen Page

The RX series incorporates the use of 16 different colors to represent 16 different parameter settings including cutting speed, force and blade offset settings when cutting. These colors are referred to as “Pens”. Think of each pen as a designated cutter setting, rather than as a color. An image that is made up of black, red and blue colors will be processed using the cutter settings designated for each particular color. In order to utilize up to 16 different pens (cutter parameter settings), make sure your graphics software can recognize and utilizes the 16 pen colors designated by the GCC RX series print driver (please refer to figure 4-21).

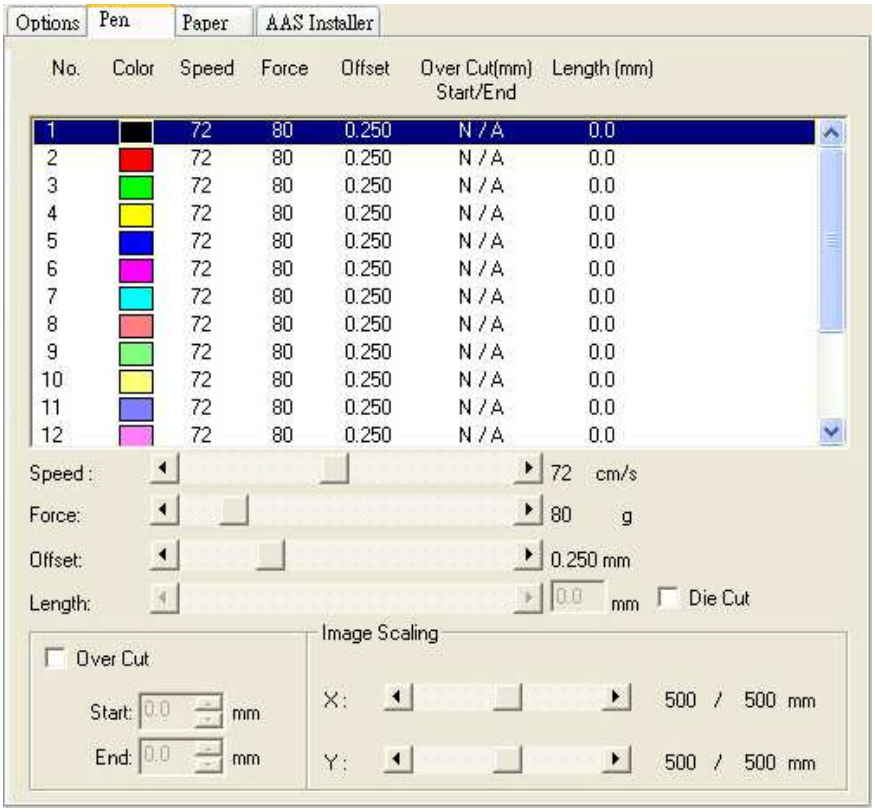

Options
Pen
Paper
AAS Installer
No.
Color
Speed
Force
Offset
Over Cut(mm) Start/End
Length (mm)
1 72 80 0.250 N / A 0.0
2 72 80 0.250 N / A 0.0
3 72 80 0.250 N / A 0.0
4 72 80 0.250 N / A 0.0
5 72 80 0.250 N / A 0.0
6 72 80 0.250 N / A 0.0
7 72 80 0.250 N / A 0.0
8 72 80 0.250 N / A 0.0
9 72 80 0.250 N / A 0.0
10 72 80 0.250 N / A 0.0
11 72 80 0.250 N / A 0.0
12 72 80 0.250 N / A 0.0
Speed : 72 cm/s
Force: 80 g
Offset: 0.250 mm
Length: 0.0 mm
Die Cut
Over Cut
Start: 0.0 mm
End: 0.0 mm
Image Scaling
X: 500 / 500 mm
Y: 500 / 500 mm

Figure 4-21

If you would like to specify your own colors to designate to a particular cutter setting, then all you have to do is to double-click on that particular pen color from the pen menu and a color manager window will open where you can select “define custom colors” to define your own color

(shown in the picture below). This is useful when your image is composed of colors that are not part of the pen menu's default color selection, and instead of modifying your image, you simply would like to assign the cutter settings based on the existing colors from your current image.

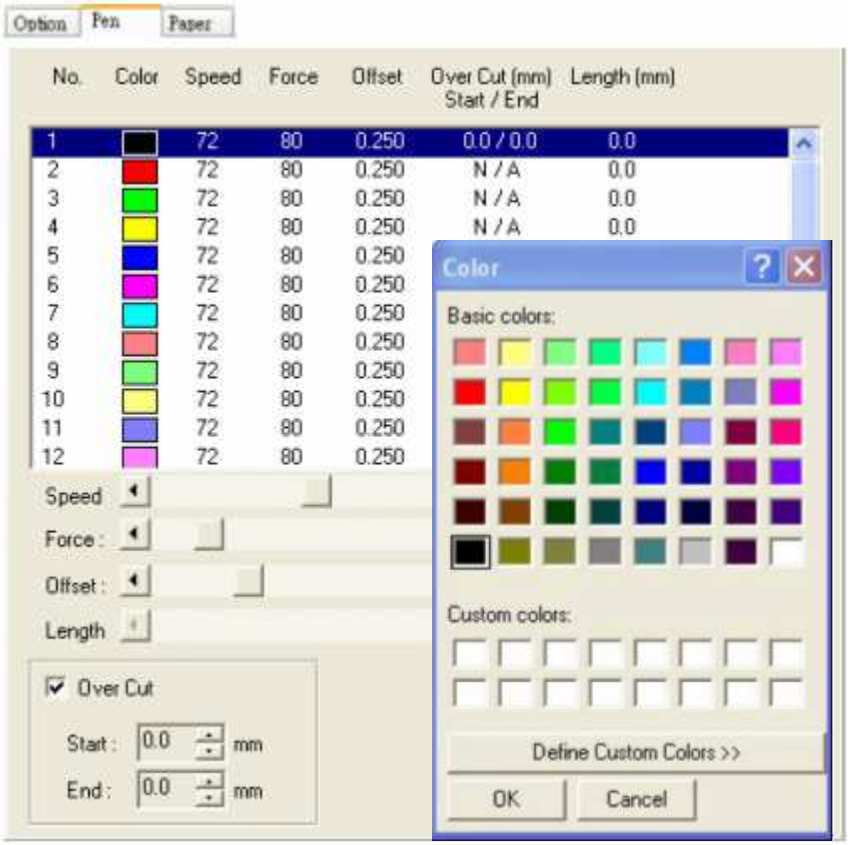


Figure 4-22

> **NOTE**
> The GCC RX series print driver cannot store more than 16 pen colors or different cutter parameter settings per file.

Speed (Pen Page) [DEFAULT SETTING: 72cm/sec]

The speed slider controls the cutter's cutting speed during operation with a range setting from 3 – 153cm/sec. The GCC RX series maximum cutting speed is 153 cm (60 inches) per second.

Force (Pen Page) [DEFAULT SETTING: 80g]

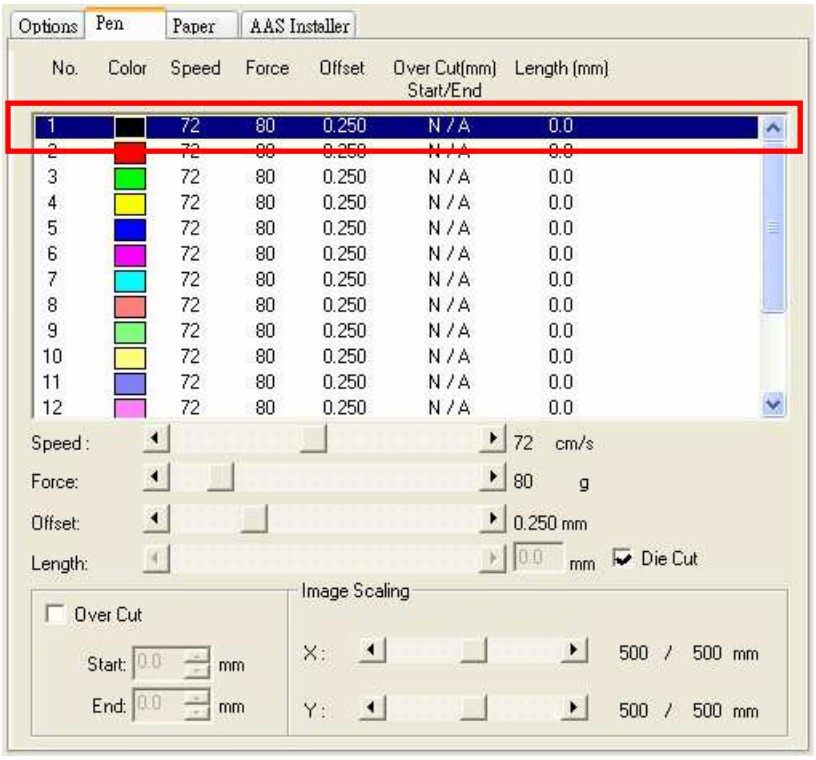
The force slider controls the cutting force during operation with a range setting from 0 – 600g.

Offset (Pen Page) [DEFAULT SETTING: 0.25mm]

The offset slider controls the blade offset depending on the blade you used.

Die Cut (Pen Page)

The Die Cut function can allow you to cut through the backing of the material. You can only use the first 8 pen for this function. If you choose Pen No.1 and click the Die Cut function, the Pen No.9 will become Pen No.1* for setting different parameter for the same cutting line. (Figure 4-24)


Options
Pen
Paper
AAS Installer
No.
Color
Speed
Force
Offset
Over Cut(mm) Start/End
Length (mm)
1 72 80 0.250 N / A 0.0
2 72 80 0.250 N / A 0.0
3 72 80 0.250 N / A 0.0
4 72 80 0.250 N / A 0.0
5 72 80 0.250 N / A 0.0
6 72 80 0.250 N / A 0.0
7 72 80 0.250 N / A 0.0
8 72 80 0.250 N / A 0.0
9 72 80 0.250 N / A 0.0
10 72 80 0.250 N / A 0.0
11 72 80 0.250 N / A 0.0
12 72 80 0.250 N / A 0.0
Speed : 72 cm/s
Force: 80 g
Offset: 0.250 mm
Length: mm
Die Cut
Over Cut
Start: mm
End: mm
Image Scaling
X: 500 / 500 mm
Y: 500 / 500 mm

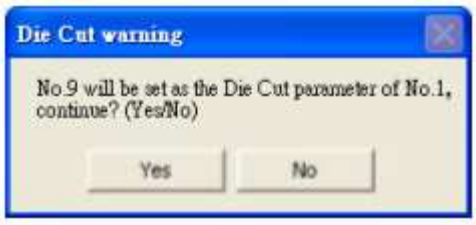


Figure 4-23 **Figure 4-24**

You can adjust the parameter such as force and length in both Pen No.1 and Pen No. 1* as you need.

For example:

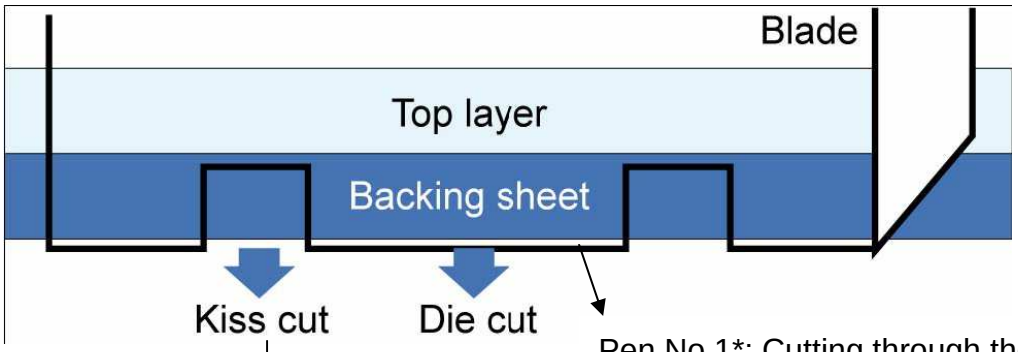


Figure 4-25

Pen No.1*: Cutting through the backing of the material

Pen No.1: Cutting through the vinyl only

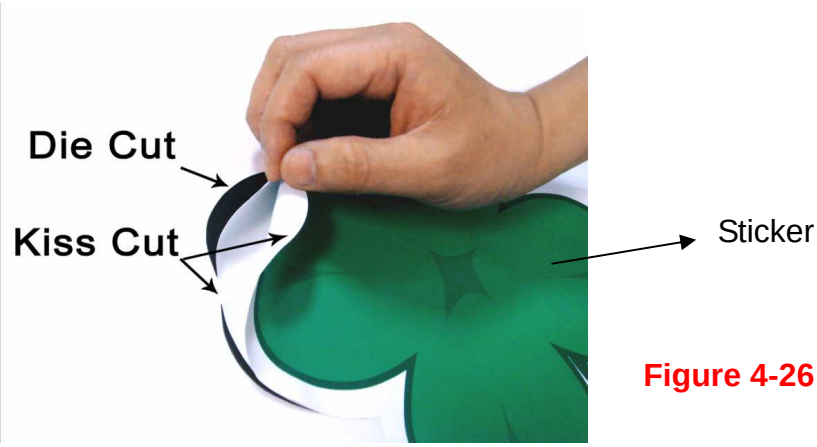
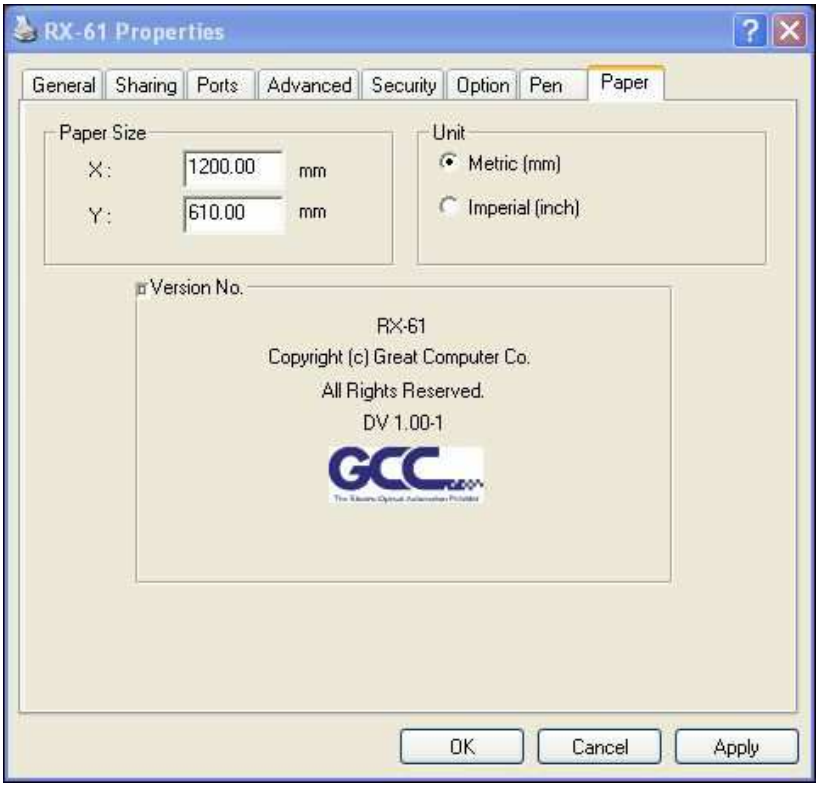


Figure 4-26

Image Scaling (Pen Page)

The Image Scaling function can allow you to set the image scale of media length and width to decrease the difference between the actual length and the ideal length caused by various media used while processing cutting job.

4.7.3 RX series Print Driver setting > Paper Page



Paper Size (Paper Page) [DEFAULT SETTING: Y = the width of machine; X will be automatically set to be twice the length of Y]

The paper size represents your total work area. The X value represents the length and the Y value represents the width. The paper size should be set as the same as your image so you can get a better cutting quality.

Unit (Paper Page) [DEFAULT SETTING: Metric (mm)]

Here you can set your preferred measurement standard in which you would like use with the RX series print driver. You can choose between metric or imperial standards.

4.8 Reference Parameter setting for different materials

The following reference parameter is used on GCC verified materials shown in the table.

Material	Wall stickers	Magnets	Protective tint
Blade	red	green	green
Blade tip length (mm)	0.3	0.8	0.3
Force (g)	95	580	320
Speed (cm/sec)	72	3	3
Offset (mm)	0.275	0.5	0.5
Recommend model	RX, Jaguar	RX, Jaguar	RX, Jaguar, Puma, Bengal, Ex Pro

Material	Vehicle stickers	Reflective film	Cardboard
Blade	red	green	green
Blade tip length (mm)	0.27	0.5	0.3
Force (g)	85	380	165
Speed (cm/sec)	60	3	30
Offset (mm)	0.275	0.5	0.5
Recommend model	RX, Jaguar, Puma, Bengal, Ex Pro	RX, Jaguar, Puma, Bengal, Ex Pro	RX, Jaguar, Puma, Bengal, Sable, Ex Pro, Ex 24/52, Ex 24/52 LX

Material	Window tint	Window decoration	Personalized stickers	Rhinestone
Blade	red	red	red	green
Blade tip length (mm)	0.09	0.25	0.28	0.8
Force (g)	70	95	105	190
Speed (cm/sec)	72	65	72	15
Offset (mm)	0.275	0.275	0.275	0.5
Recommend model	RX, Jaguar	RX, Jaguar	RX, Jaguar	RX, Jaguar IV, Puma III

Chapter 5 Automatic-Aligning System

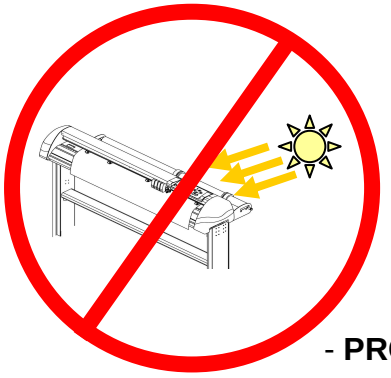
Please note that this chapter is only an instruction to AASII; for step-by-step instructions, please refer to the following chapters: 08_A-3 CorelDraw Plug-In, 08_A-5 GreatCut, 08_A-6 Illustrator.

5.1 Introduction

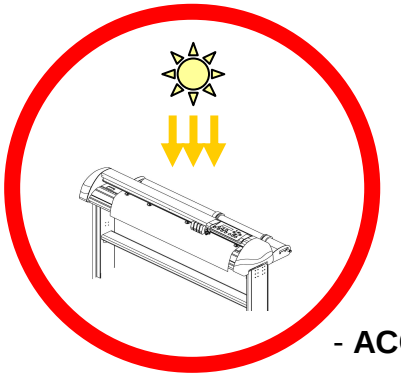
The RX series cutting plotters feature a standard Automatic-Aligning System (AAS II) to guarantee precise contour cutting quality by detecting the registration marks printed around the graphic.

Notice

- Avoid any kind of light source horizontally illuminating the AAS module.



- **PROHIBITED**



- **ACCEPTABLE**

- DO NOT take off the cover of AAS module while in operation.

- **PROHIBITED**

5.2 AAS Calibrating the System

The AAS system has one calibration procedures to ensure maximum accuracy of AAS operation. To operate the AAS you need to learn about the method of media feeding firstly. (Refer to 4.1 Media Loading.)

5.2.1 Media Calibration

Media Calibration is to ensure the sensor being able to recognize the registration marks. The factory default works on a wide range of materials. However, certain types of materials may not work properly. Performing a media calibration may become necessary while working with such materials to change the sensitivity of AAS for greater reliability. Media calibration adjusts the media feeding according to media type for better accuracy during cutting.

- **When to use**

  We suggest white media for best cutting result. It is not necessary to perform media calibration every time unless the registration marks on the printed media become undetectable in AAS sensing process.

5.2.2 AAS Calibration

The first registration mark is designed to be different in order to identify the origin for AAS auto-detection. The following precaution must be aware for registration marks to be read automatically.

- Type of media
- Registration mark pattern
- Reading range required for detection the registration marks
- Position for registration marks and medium

The registration marks have to be:

- Created by cutting software like GreatCut or GCC CorelDRAW plug-in
- In black color (printing quality of registration marks is essential; incorrect, misaligned colors, blurry or smeared printout might leading to inaccurate cutting result)
- Length: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm

- Margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm

The cutter can not detect the marks while:

- Cutter carriage is not located near the outside area of first mark before detecting (See the picture in page 5-7 for auto-detecting area of first mark.)
- Medium thickness is more than 0.8mm
- Transparent medium is used
- Non-monochrome drawing. The marks can't be read if is printed on colored medium
- Dirty or creased medium surface

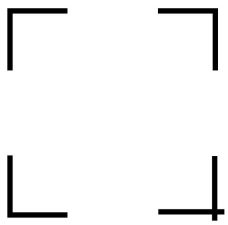
5.2.3 AAS II on RX series

There are three types of AAS II mark patterns: 4-Point Positioning, Segmental Positioning, and Multiple Copies. Note that before print out your designs by inkjet printers, the registration marks have to be created on your graphic designs by cutting software like GreatCut, SignPal or GCC CorelDraw plug-in. Hand-made marks or drawings won't be reorganized by GCC cutting plotters. For more details about registration mark setting in cutting software, please refer to '**Appendix A-3** : CorelDraw Plug-In Instruction", '**Appendix A-4** : SignPal 8.5 Instruction', and '**Appendix A-5** : GreatCut Instruction.

1. 4-Point Positioning

This is the basic mark pattern that AAS II will auto detect four registration marks and contour cut images inside those marks.

- Command: Esc.D1;(XDist);(YDist):
- Layout: 4 L-shaped marks at the 4 corners around the design

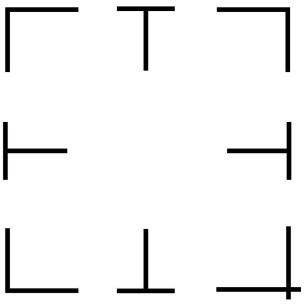


2. Segmental Positioning

In addition to 4 original points, the intermediate registration marks are added on both X axis and Y axis to help contour cut accurately, especially for cutting large images.

- **Command:** Esc.D2;(XDist);(YDist);(XStep);(YStep):
- **Layout:**
  In-between distance on X: 200~600mm, default 300mm

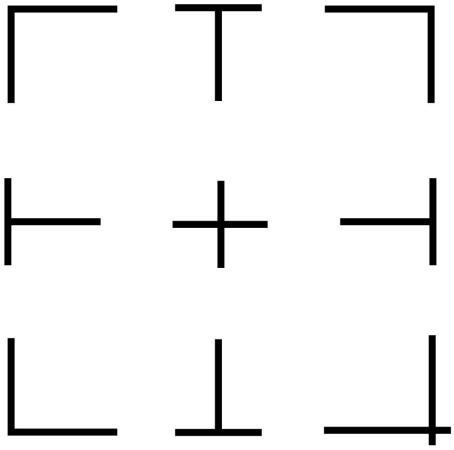
In-between distance on Y: 200-600mm, default 300mm



3. Multiple Copies

The function is used to duplicate images to let you cut quantities of images at a time.The AAS II sensor will automatically scan registration marks for each individual image to ensure the contour cutting precision.

- **Command:** Esc.D3;(XCopies);(YCopies);(Space):
- **Layout:**



5.3 Printer Test

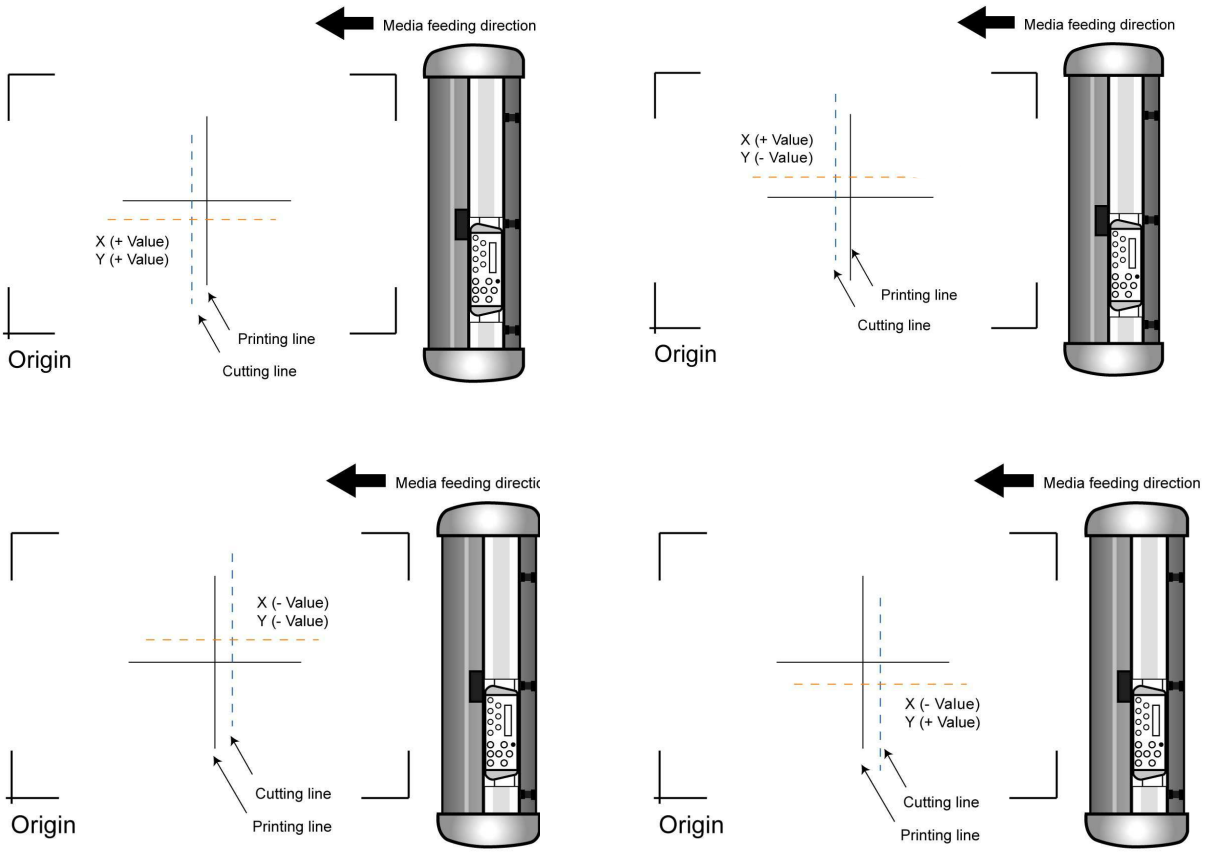
Before performing AAS contour cutting, it's recommended to print out a test file that you can find in the enclosed Installation CD to make sure the AAS II cutting accuracy of RX series.

There are two testing files for AASII:

1. AAS II_X_Y_Offset_Caberation_A4 .eps (A4 size)
2. AAS II_X_Y_Offset_Caberation_600_600 .eps (Default setting, it is recommended for testing)

- Print out the testing graphic. (Please use high precision printer)

- Load the graphic to RX series and sent the file to test the cutting job
- If there are any adjustments to be made, you can change the offset value by following the steps:
  - Measure the offset values from the printed line and the actual cutting line.
  - Enter the AAS Offset under MISC function for the values you just measured, then press Enter
  - Test the cutting again
  - AAS II offset X and Y value is defined as following:
    Horizontal line is defined as X and vertical is defined as Y (when facing the cutting plotter)
  - When the actual cutting line and the printed line need to be changed towards the direction of origin mark, then simply add the negative value of the offset. If the direction is from the opposite of the origin mark, then enter positive values for the offset (see the following figures). This method applies to both X and Y axes.

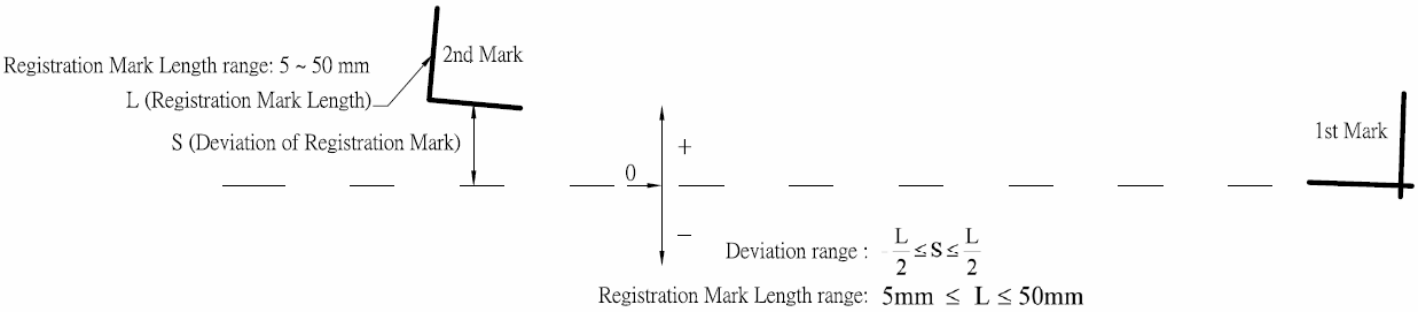


Note:

- Before adjusting the AAS II settings, please proceed scaling for width and length.
- The blade offset value isn't set for this test graphic, please set it according to the blade you use.
- If you have any question, please contact us or your local distributor for assistance.

5.4 Registration Mark Offset Range

Please correctly load your media (refer to the alignment ruler on the platen) to make sure the registration marks are successfully detected. Deviation exceeds the range below will lead to detection failure.


Registration Mark Length range: 5 ~ 50 mm
L (Registration Mark Length)
S (Deviation of Registration Mark)
2nd Mark
1st Mark
0
+
−
Deviation range : $\frac{L}{2} \le S \le \frac{L}{2}$
Registration Mark Length range: 5mm ≤ L ≤ 50mm

5.5 Contour Cutting

For accurate contour cutting with AAS function, please proceed the following steps:

Step 1 **Creating Graphics**

- Create the graphic that you want to print and cut in your software.

- Create a contour for cutting around the graphic.

TIPS1: Leave some space between the graphic and contour line.

TIPS2: Create the contour in a separate layer and assign a different color for it.

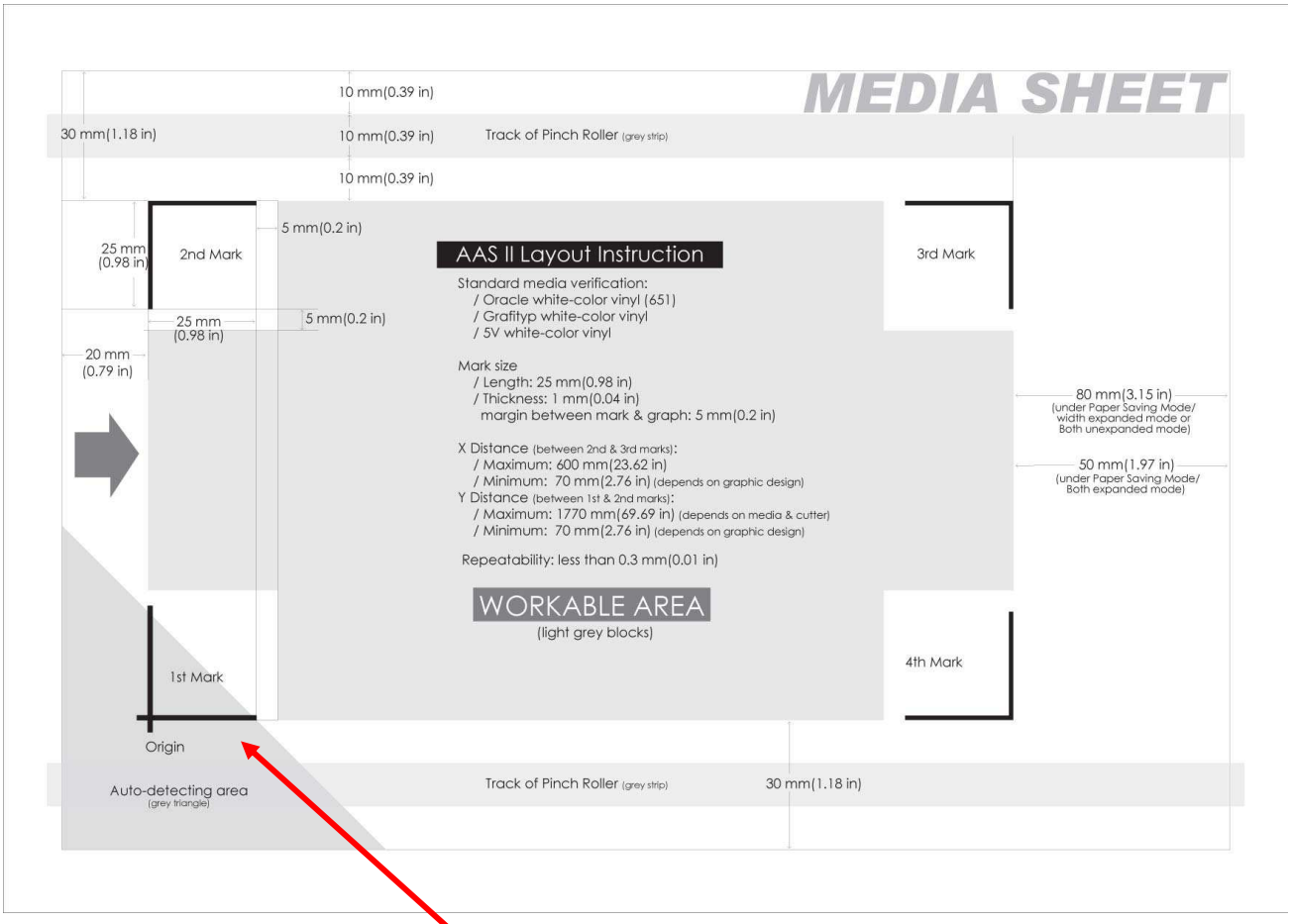
■ Add registration marks around the graphic.

Note:

The Multiple Copies function is also available. It automatically copy the graphic and registration marks.

Step 2 Placing the Registration Marks

■ The AAS Layout Instruction:


MEDIA SHEET
10 mm(0.39 in)
30 mm(1.18 in)
10 mm(0.39 in)
Track of Pinch Roller (grey strip)
10 mm(0.39 in)
25 mm (0.98 in)
2nd Mark
5 mm(0.2 in)
AAS II Layout Instruction
3rd Mark
Standard media verification:
/ Oracle white-color vinyl (651)
/ Grafityp white-color vinyl
/ 5V white-color vinyl
25 mm (0.98 in)
5 mm(0.2 in)
20 mm (0.79 in)
Mark size
/ Length: 25 mm(0.98 in)
/ Thickness: 1 mm(0.04 in)
margin between mark & graph: 5 mm(0.2 in)
80 mm(3.15 in)
(under Paper Saving Mode/ width expanded mode or Both unexpanded mode)
X Distance (between 2nd & 3rd marks):
/ Maximum: 600 mm(23.62 in)
/ Minimum: 70 mm(2.76 in) (depends on graphic design)
Y Distance (between 1st & 2nd marks):
/ Maximum: 1770 mm(69.69 in) (depends on media & cutter)
/ Minimum: 70 mm(2.76 in) (depends on graphic design)
50 mm(1.97 in)
(under Paper Saving Mode/ Both expanded mode)
Repeatability: less than 0.3 mm(0.01 in)
WORKABLE AREA
(light grey blocks)
1st Mark
4th Mark
Origin
Auto-detecting area
(grey triangle)
Track of Pinch Roller (grey strip)
30 mm(1.18 in)

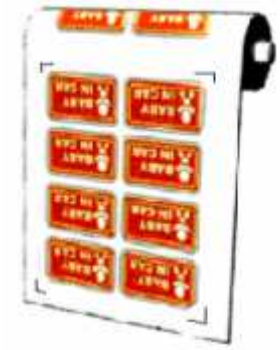
* Auto-detection function on the 1st mark covers the grey area

■ Suggested 30mm margin on both left and right sides of media sheet.

■ Suggested 20~30mm margin on top of media sheet, and at least 50mm margin on the bottom edge to prevent sheets dropping or any error occurred while media sizing.

Step 3 Print the Graphics

■ Print the graphic and the marks with your printer

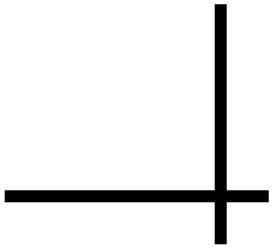


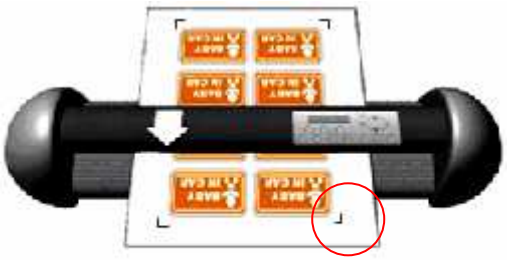
(Scaling = 100%).

■ When printing on a roll media, make sure the orientation as following:

Step 4 **Load the printout onto cutter**

■ The Origin Mark is is different from the rest registration marks. Please make sure the media is fed with correct direction.





Step 5 **Cut the Contour**

■ Send out the command from software to perform the contour cutting job.

5.6 Tips for AAS

For getting better results of contour cutting, there are some tips below for your reference.

- Keep light sources simple and avoid illuminating from the sides of cutter.
- Before operating AAS, change the maximum paper size in RX series driver property.
  STEP 1 Find the **RX model** in the “Printer & Fax” folder of your PC.
  STEP 2 Open the Properties window and select the “Paper” tab.
  STEP 3 Change the maximum Paper Size of X to **1200**mm.
- Adjust the cutting speed to between 300~600mm/sec.
- Avoid the registration marks locating on the tracks of pinch rollers.
- Make sure the edge of the media is not bent up when detecting registration marks.

6. Maintenance

This chapter explains the basic maintenance (i.e. cleaning the cutting plotter) required for the cutting plotter. Except for the procedures mentioned below, all other maintenance must be performed by a qualified service technician.

6.1 Cleaning the Cutting Plotter

Cleaning the machine properly and regularly will ensure optimal performance out of your machine.

Cleaning Precaution !

- Unplug the cutting plotter before cleaning it in order to prevent electrical shock.
- Never use solvents, abrasive cleaners or strong detergents for cleaning. They may damage the surface of the cutting plotter and the moving parts.

Recommended Methods:

- Gently wipe the cutting plotter surface with a lint-free cloth. If necessary, with a damp cloth immersed in water or alcohol. Dry and wipe any remaining residue off a soft, lint-free cloth.
- Wipe all dust and dirt from the tool carriage rails.
- Use a vacuum cleaner to empty any accumulated dirt and media residue beneath the pinch roller housing.
- Clean the platen, paper sensors and pinch rollers with a damp cloth immersed in water or alcohol, and dry with a soft, lint-free cloth.
- Wipe dust and dirt from the stand.

6.2 Cleaning the Grid Drum

1. Turn off the cutting plotter, and move the tool carriage away from the area needed to be cleaned.

2. Raise the pinch rollers and move them away from the grid drum for cleaning.

3. Use a bristle brush (a toothbrush is acceptable) to remove dust from the drum surface. Rotate the drum manually while cleaning. Refer to Figure 6-1.

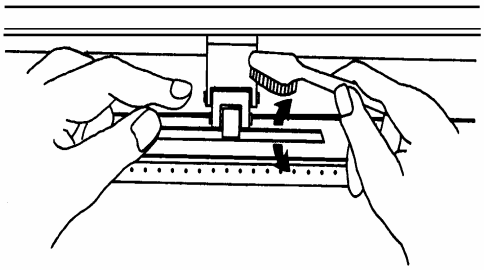


Figure 6-1

6.3 Cleaning the Pinch Rollers

1. If the pinch rollers require a thorough cleaning, use a lint-free cloth or cotton swab to wipe away the accumulated dust from the rubber portion of the pinch rollers. To prevent the pinch rollers from rotating while cleaning, use your finger to hold the pinch rollers to prevent them from rotation

2. To remove the deeply-embedded or persistent dust, use the lint-free cloth or cotton swab moistened with rubbing alcohol.

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.

7. Trouble Shooting

This chapter is to help you correct some common problems you may come across. Prior to getting into the details of this chapter, please be sure that your application environment is compatible with the cutting plotter.

> **Note:**
> Before having your cutting plotter serviced, please make certain that the malfunction is in your cutting plotter, not the result of an interface problem or a malfunction in your computer or a software problem.

Why is the cutting plotter not functioning?

Possible Causes:

7.1 Non-Operational Problems

Check the following first:

- Does the AC power cord plug in properly?
- Does the AC power cord connected to the power connector properly?
- Does the power LED still illuminate?

Solutions:

If the LCM is able to display the message, the cutting plotter should be in a normal condition. Switch off the cutting plotter and turn it on again to see if the problem still existing.

If the LCM is not able to display any message, contact the technician from your dealer.

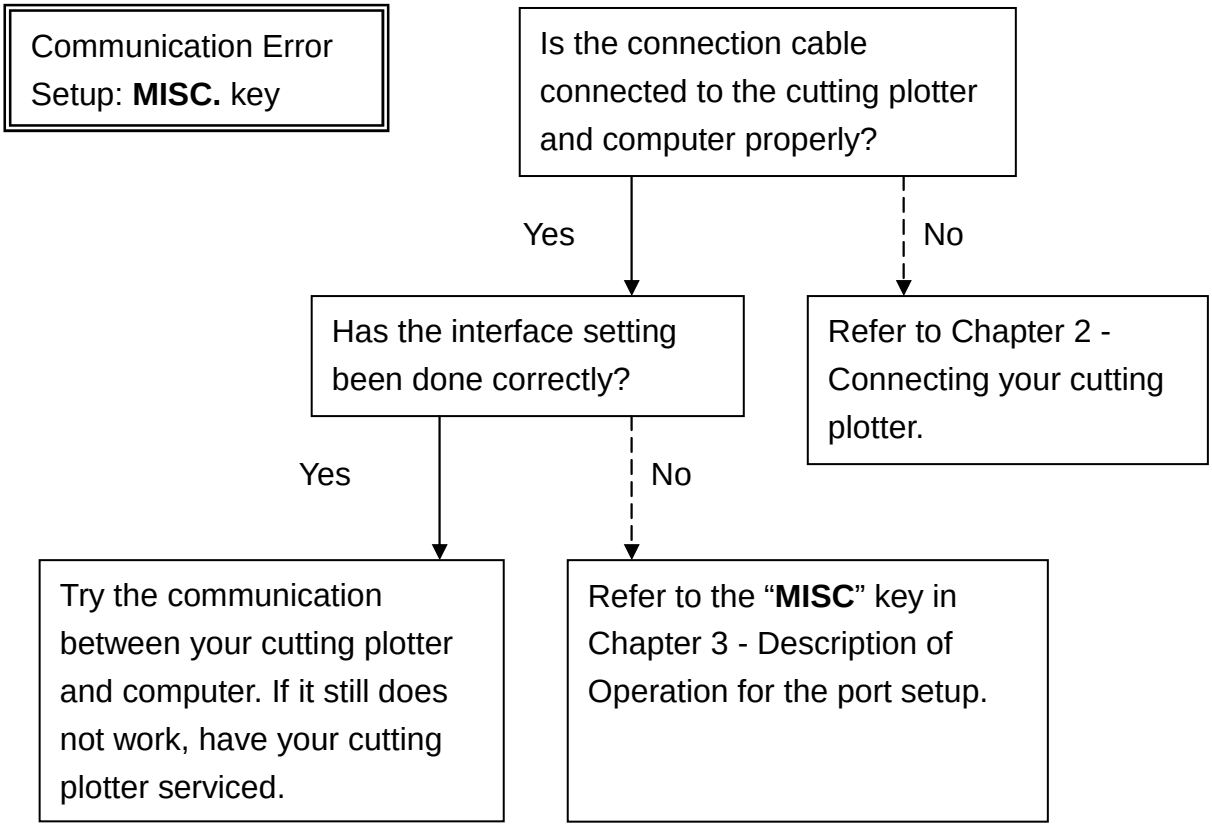
7.2 Operational Problems

Some mechanical problems or failure during operation will cause some problems. The error messages shown on the LCM present the problem first, and followed by recommended actions. If the problem still exists after the recommended actions have been done, have your cutting plotter serviced.

Error, Check Media Or Drum or X Motor	This message indicates that there might be a problem on the **X axis**. Check if the drum is working well and if the media is well loaded. Correct the problem and re-power on to reboot system.
Error, Check Media Or Y Motor	This message indicates that there might be an obstruction to carriage relating to a problem on the **Y axis**. Correct the problem and re-power on to reboot system.
Error, Check Carriage Sensor or VC Motor	This message indicates that the blade up/down sensor malfunction. Re-power on to re-boot system. If the problem still exists, find a serviceman.
Graph Was Clipped. Data In Buffer	This message indicates that the cutting exceeds the cutting limit. Reload larger media or re-scale the plot to a smaller size; then press the key followed by the display of LCM to continue.

7.3 Cutting Plotter/Computer Communication Problems

The messages showed below present problems in relation to cutting plotter/computer communication.


Communication Error
Setup: MISC. key
Is the connection cable connected to the cutting plotter and computer properly?
Yes
No
Has the interface setting been done correctly?
Refer to Chapter 2 - Connecting your cutting plotter.
Yes
No
Try the communication between your cutting plotter and computer. If it still does not work, have your cutting plotter serviced.
Refer to the "MISC" key in Chapter 3 - Description of Operation for the port setup.

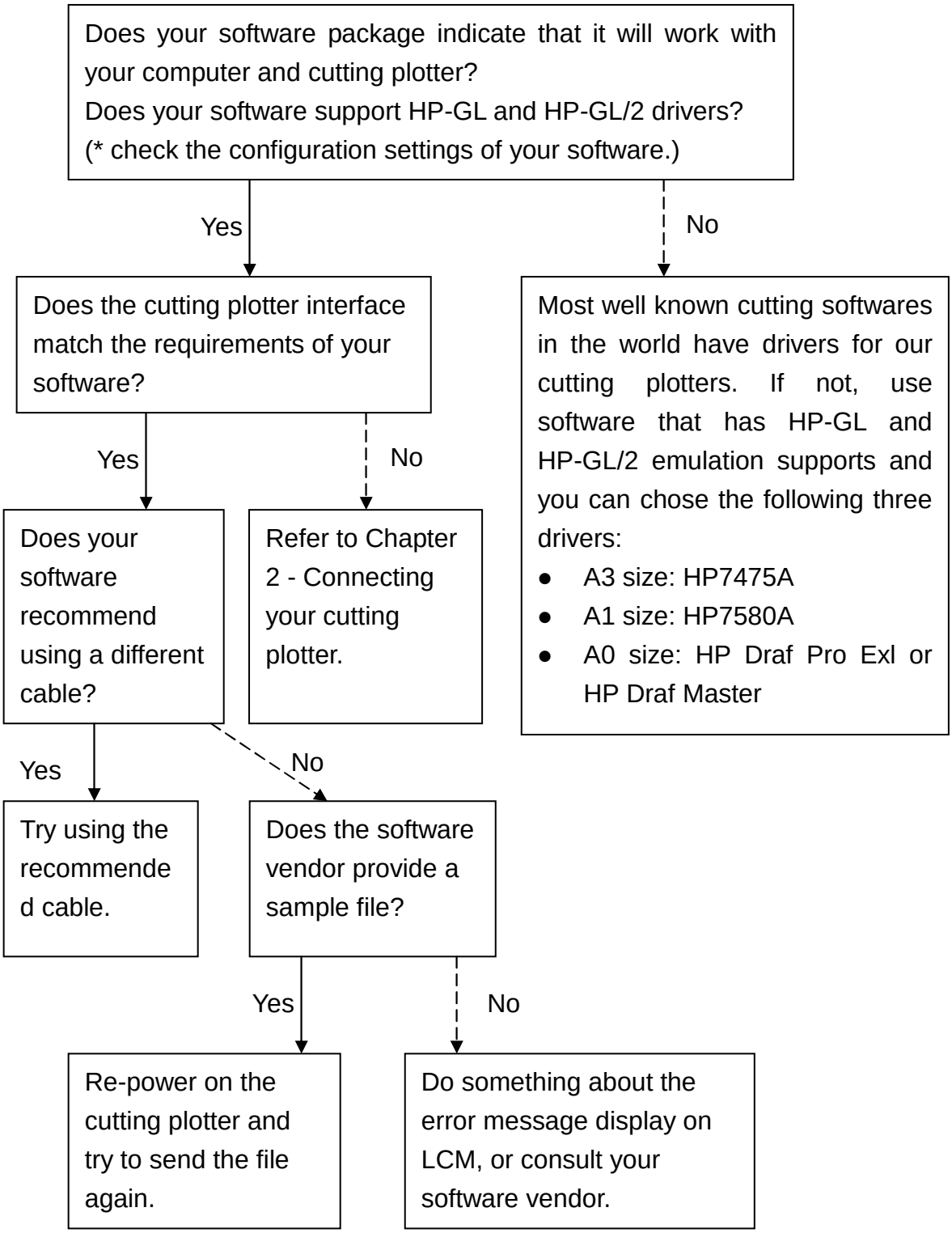
Note:
The computer also needs to set up compatible communication parameters to the cutting plotter set up.

HP-GL/2 Cmd. Error

If your cutting plotter can not recognize the HP-GL/2 or HP-GL commands, please check the HP-GL/2 or HP-GL commands applied to your cutting plotter are used properly.

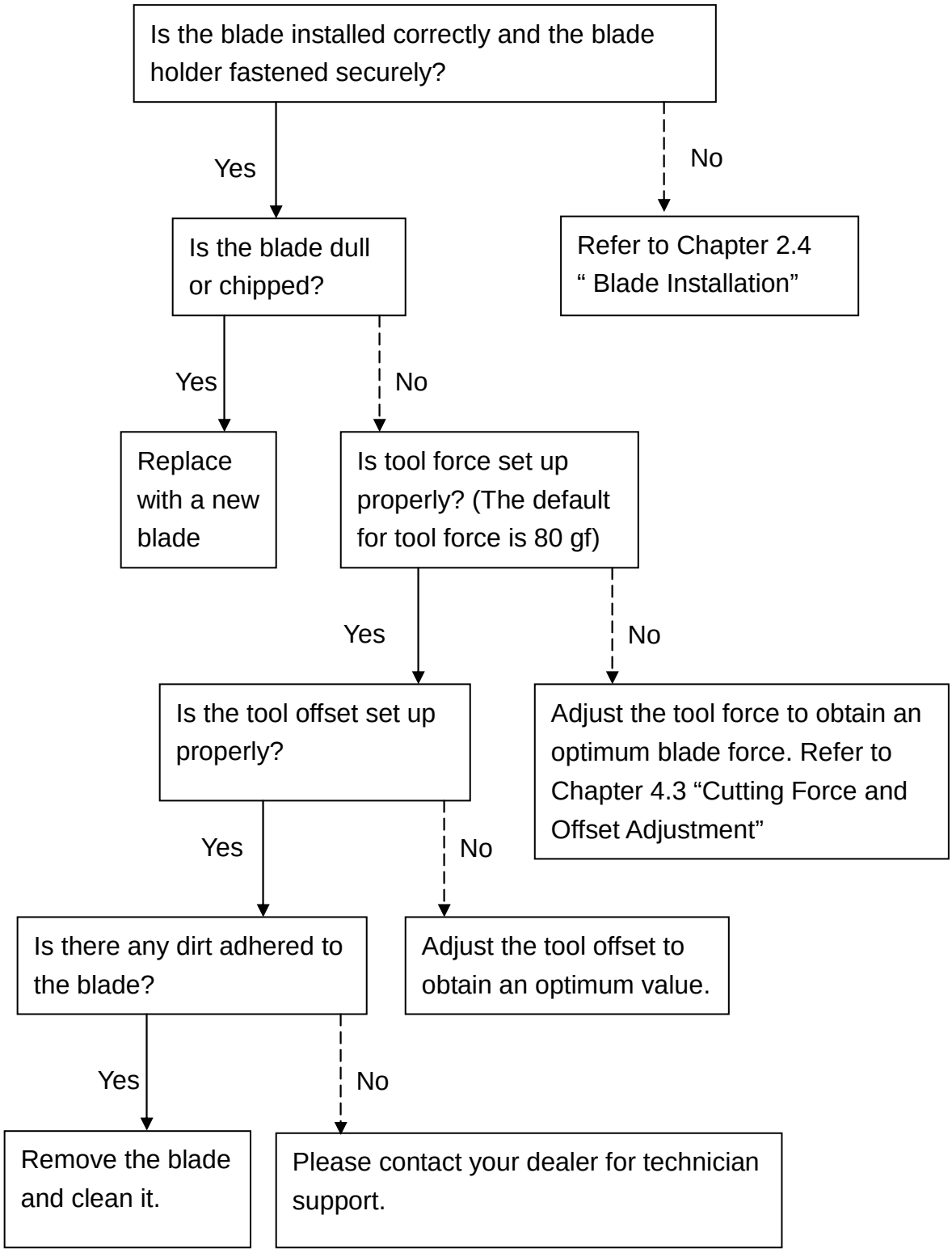
7.4 Software Problems

Check the following first:


Does your software package indicate that it will work with your computer and cutting plotter?
Does your software support HP-GL and HP-GL/2 drivers?
(* check the configuration settings of your software.)
Yes
No
Does the cutting plotter interface match the requirements of your software?
Most well known cutting softwares in the world have drivers for our cutting plotters. If not, use software that has HP-GL and HP-GL/2 emulation supports and you can chose the following three drivers:
A3 size: HP7475A
A1 size: HP7580A
A0 size: HP Draf Pro Exl or HP Draf Master
Yes
No
Does your software recommend using a different cable?
Refer to Chapter 2 - Connecting your cutting plotter.
Yes
No
Try using the recommende d cable.
Does the software vendor provide a sample file?
Yes
No
Re-power on the cutting plotter and try to send the file again.
Do something about the error message display on LCM, or consult your software vendor.

7.5 Cutting Quality Problems

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.


Is the blade installed correctly and the blade holder fastened securely?
Yes
No
Is the blade dull or chipped?
Refer to Chapter 2.4 “ Blade Installation”
Yes
No
Replace with a new blade
Is tool force set up properly? (The default for tool force is 80 gf)
Yes
No
Is the tool offset set up properly?
Adjust the tool force to obtain an optimum blade force. Refer to Chapter 4.3 “Cutting Force and Offset Adjustment”
Yes
No
Is there any dirt adhered to the blade?
Adjust the tool offset to obtain an optimum value.
Yes
No
Remove the blade and clean it.
Please contact your dealer for technician support.

RX series Specification

Model Number		RX-61	RX-101S	RX-132S	RX-183S
Operational Method		Roller-Type			
Max. Cutting Width		610mm (24in)	1010mm (40in)	1320mm (52in)	1830mm(72in)
Max. Cutting Length		50m (164ft)			
Max. Media Loading Width		810mm(31.88in)	1326mm(52.2”)	1635mm(64.37”)	2145mm(84.44”)
Min. Media Loading Width		50mm (1.97in)			
Number of Pinch Rollers		2	3	4	5
Acceptable Material Thickness		0.8mm (0.03in)			
Drive Motor		DC Servo Control			
Cutting Force		5~600 g			
Max. Cutting Speed		1530 mm/sec (60ips / Diagonal)			
Acceleration		4.2 G (gravity)			
Offset		0~1.0 mm (with an increase of 0.025mm)			
Memory Buffer		16 MB			
Interfaces		USB 2.0 (Full Speed) and Serial (RS-232)			
Type of Command		HP-GL, HP-GL/2			
Mechanical Resolution		0.006 mm			
Software Resolution		0.025 mm			
Distance Accuracy		±0.254 mm or ±0.1% of move, whichever is greater			
Repeatability		±0.1mm			
Automatic-Aligning System		Completely Automatic Contour Cutting System for print to cut solution			
Curve & Arc Smoothing		Yes			
Configurable Origin		Yes			
Test Cut capability		Yes			
Tangential mode		Yes			
Over Cut		Yes			
Repeat		Yes			
Copy		Yes			
Pouncing		Yes			
Control Panel		LCD (20 digits x 2 lines), 15 Keys, 1 Power LED, 1 Green LED			
Power Supply		100 ~ 240VAC 50/60Hz (auto switching)			
Power Consumption		251.8watts			
Dimension (HxWxD) mm		274.2 * 1098 * 273.5	1149 * 1614 * 606	1149 * 1923 * 606	1149 * 2433 * 760
(HxWxD) in		10.8 * 43.2 * 10.8	45.24 * 63.5 * 23.8	45.24 * 75.7 * 23.8	45.24 * 95.8 * 29.9
Net Weight		25kg	61.8kg	71.5kg	87.2kg
Auto Cut Off		Standard			
Max. Cut Off Width		696mm	1107mm	1417mm	1927mm
Stand		Optional	Standard		
Media Basket		Optional			
Operation Environment	Temperature	15°C~30°C / 60℉~86℉			
	Humidity	25% ~ 75%			

- Compatible with Windows 2000/ XP/ Vista/ 7/ 8 and MAC OS X 10.4-10.7

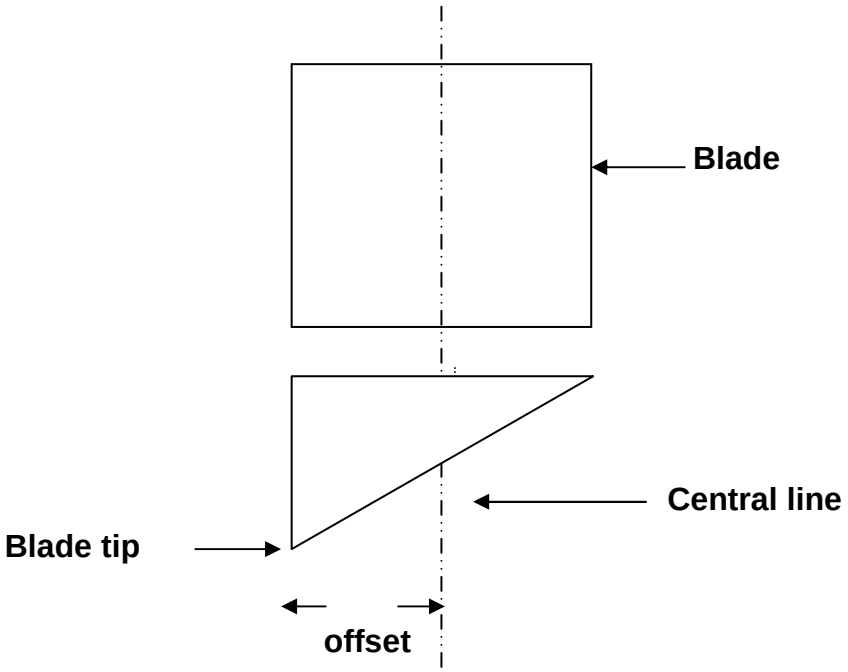
- The specification and data sheet may vary with different materials used. In order to obtain the best output quality, please maintain the machine regularly and properly.
- GCC reserves the right to change the specifications at any time without notice.
- The above listed specification values are effective only when operated with media certified by GCC.

Blade Specification

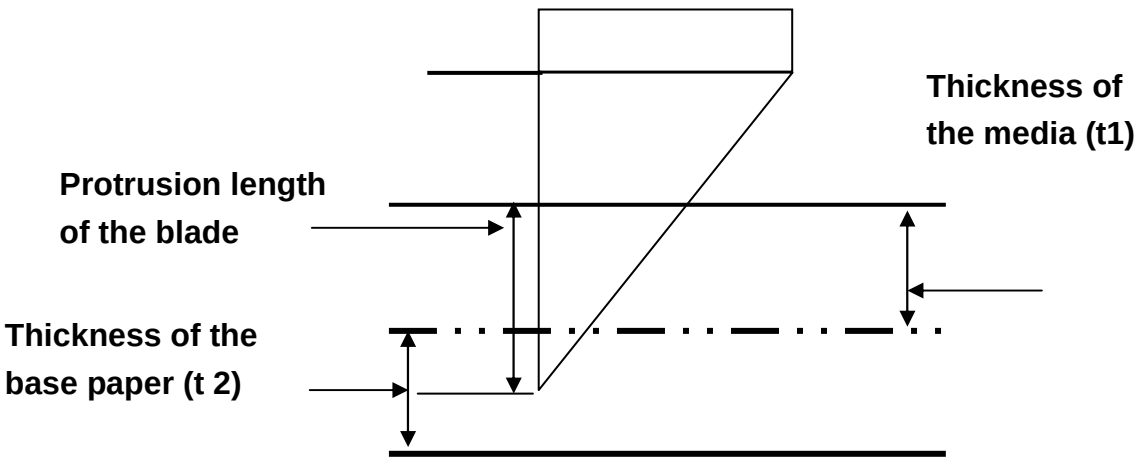
20200159G	For cutting thick fluorescent and reflective vinyl. Also for cutting detailed work in standard vinyl.
	The blade is 45°with **Red Cap**(5-unit package), 0.25 mm offset
265012020G	For cutting reflective vinyl, cardboard, sandblast, flock, and stencil sharp edge.
	The blade is 60°with **Green Cap**, 0.50 mm blade offset
26500059G	For cutting thin sandblast mask and stencil with friction feed or sprocket feed machine.
	The blade is 60°with **Blue Cap**, 0.25 mm blade offset
26500060G	For Cutting small text and fine detail. Sharp blade with smallest offset.
	The blade is 0.175 mm blade offset with **Black Cap**
265012840G	For thin and delicate media such as window tint.
	The blade is 25°with **Yellow Cap**, 0.25 mm blade offset

About the Tool

A generic term referring to the blade that cuts the sheet, the pen that does plotting, and the LED bombsight (option) used for pointing to the reference point.
OFFSET is the distance that the blade tip is displaced from the centerline of the blade.



Protrusion Length of the Blade



Length of protrusion = t1 + t 2/ 2, but for your convenience you may just make it about 0.3mm ~ 0.5mm beyond the blade holder tip.

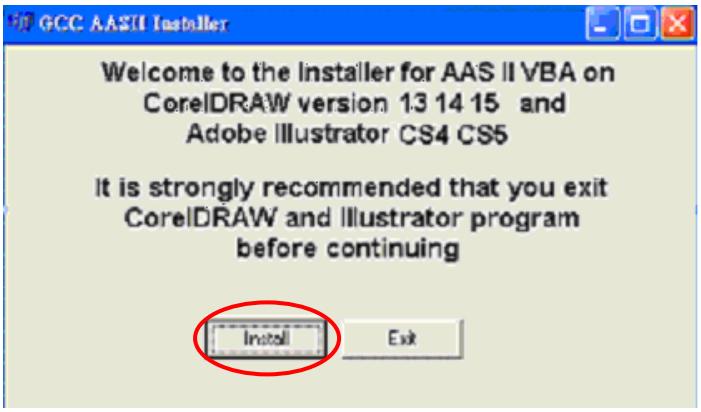
CorelDRAW Plug-In Instruction

AASII VBA Installer is applicable for CorelDRAW Version 13, 14, 15, 16

Installation

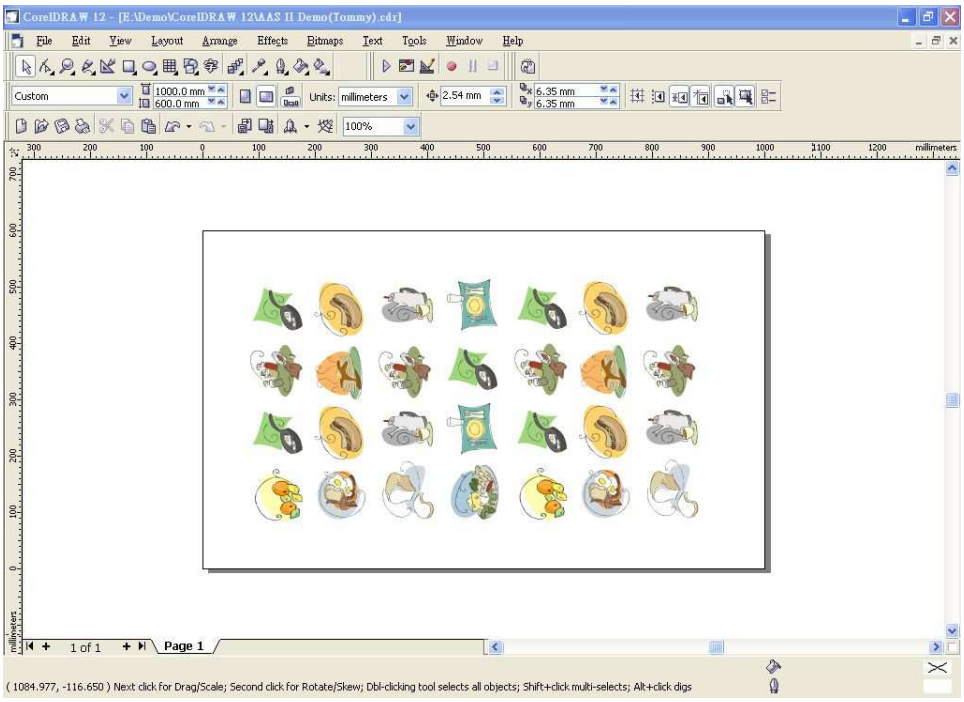
1. Check the “AAS CorelDraw Installer” folder in RX Installation CD, and double click the “AASIIVBAInstaller.exe” file to run the installation program.

2. Press the “Install” button to begin installing GCC AASII CorelDRAW VBA.

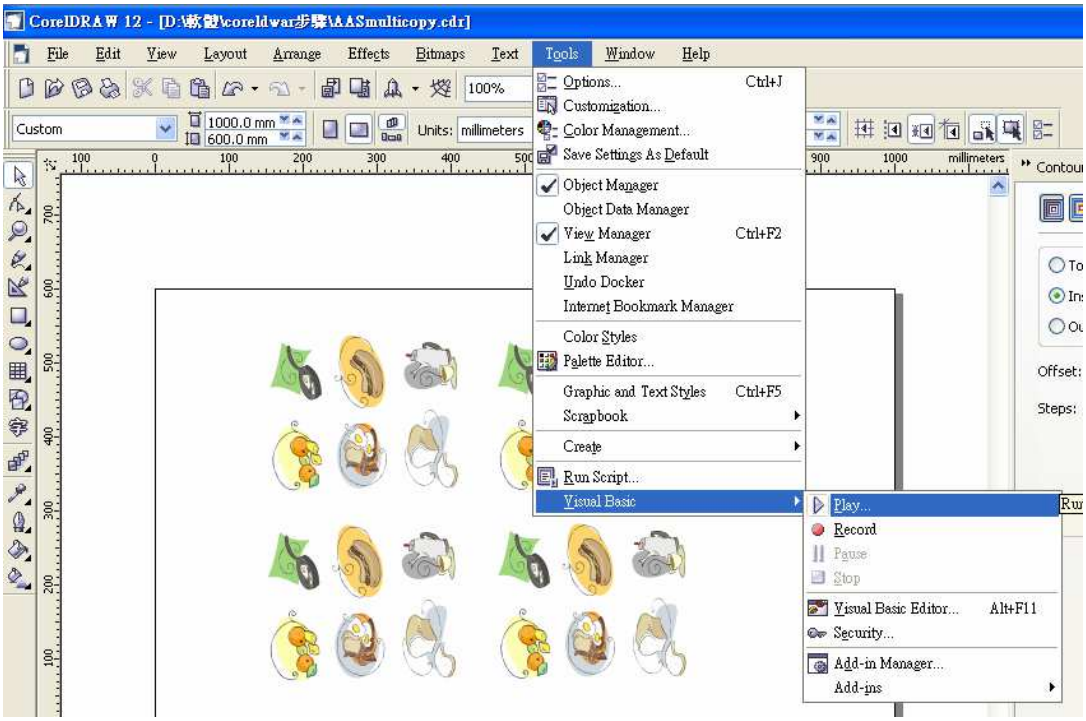

GCC AASII Installer
Welcome to the Installer for AAS II VBA on
CorelDRAW version 13 14 15 and
Adobe Illustrator CS4 CS5
It is strongly recommended that you exit
CorelDRAW and Illustrator program
before continuing
Install
Exit

User Instructions

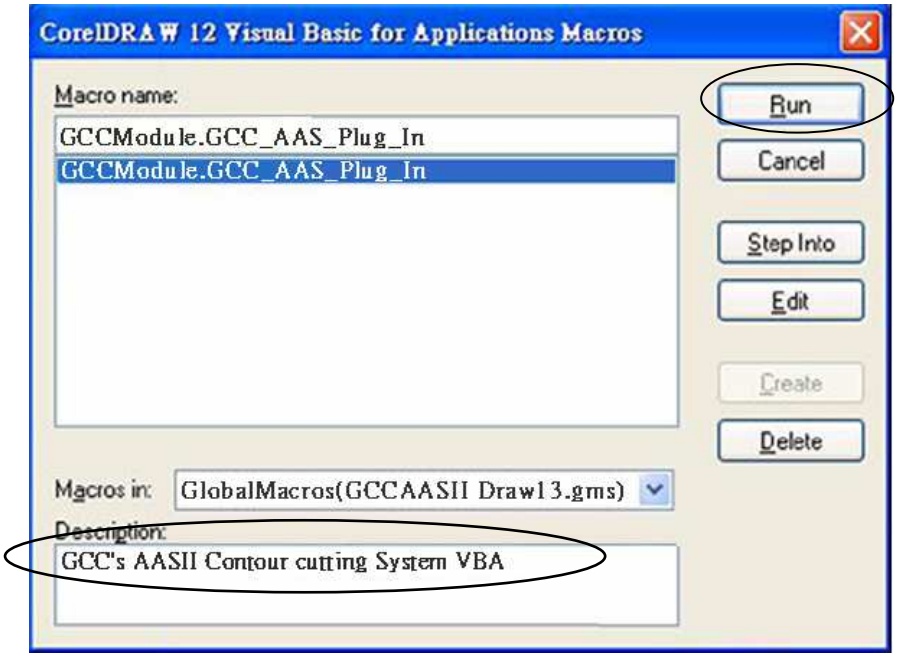
1. Run CorelDRAW to edit your graphics and select all images at once when you wish to plot.


CorelDRAW 12 - [E:\Demo\CorelDRAW 12\AAS II Demo(Tommy).cdr]
File Edit View Layout Arrange Effects Bitmaps Text Tools Window Help
Page 1

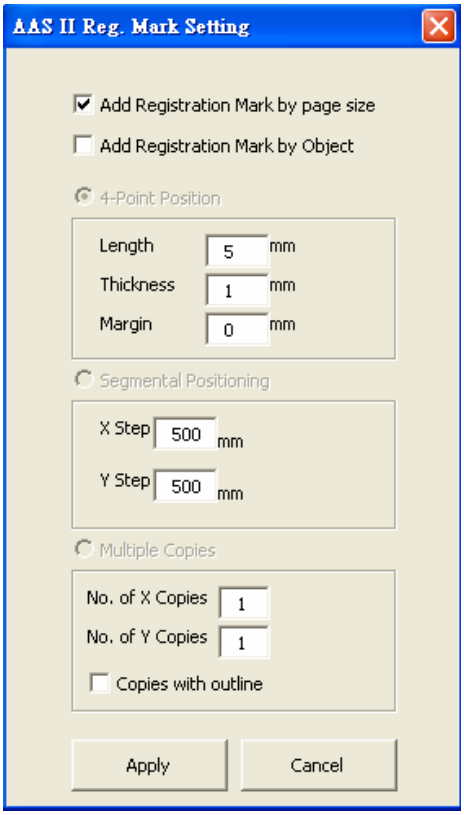
2. Select “Tools→Visual Basic→Play”.



The Visual Basic for Applications Marcos window will pop up. Select Global Macros(GCCAASII_Draw13.gms) under the “Macros in” manual, and press “Run”.



3. Click on “Apply” and select whether you would like to add the registration marks by page size or by object.

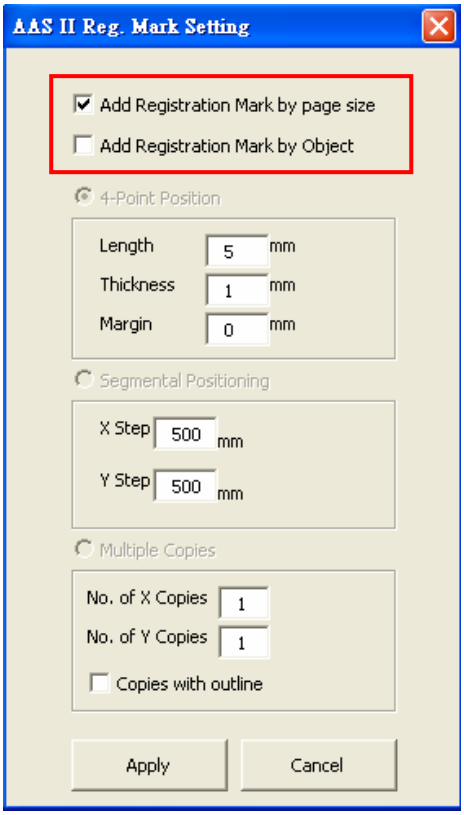


Note: “Add Registration Mark by Object” will be the default selection if you click on the image whereas “Add Registration Mark by page size” will be the default one when the blank area on the page is clicked.

4. Now you can print out the image file with registration marks.

Add Registration Mark by page size

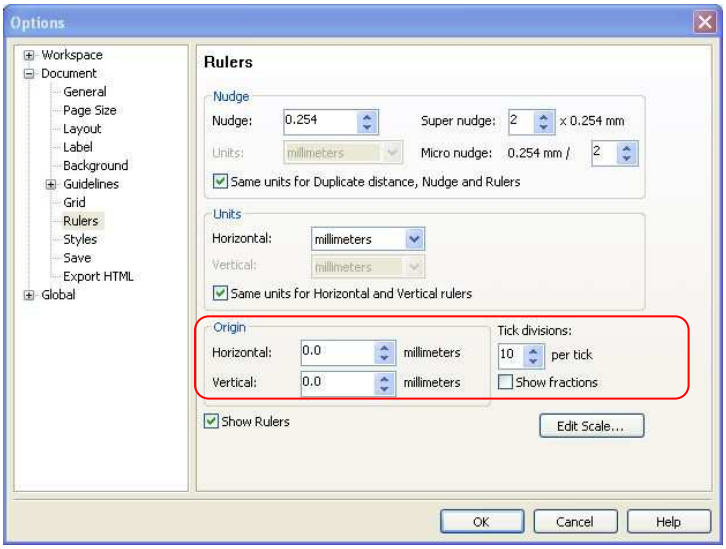
If you tick “Add Registration Mark by page size” as shown in the figure below and click “Apply”, your registration marks will be created automatically.



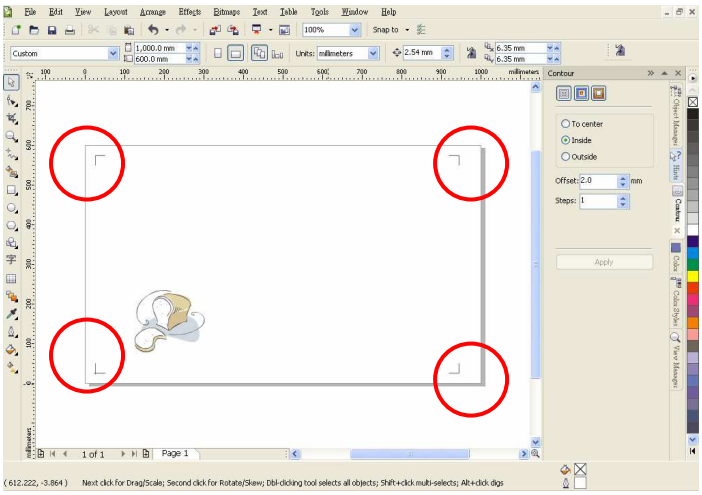
Note:

1. The length setting will be in the range of 5-25mm according to your page size.

2. Please DO NOT make any changes to the “Origin” section when you choose to add registration marks by page size as indicated below otherwise the position of the marks will be changed.



The system will create the 4 marks on the 4 corners of the page as shown in the picture below wherever you move your image.

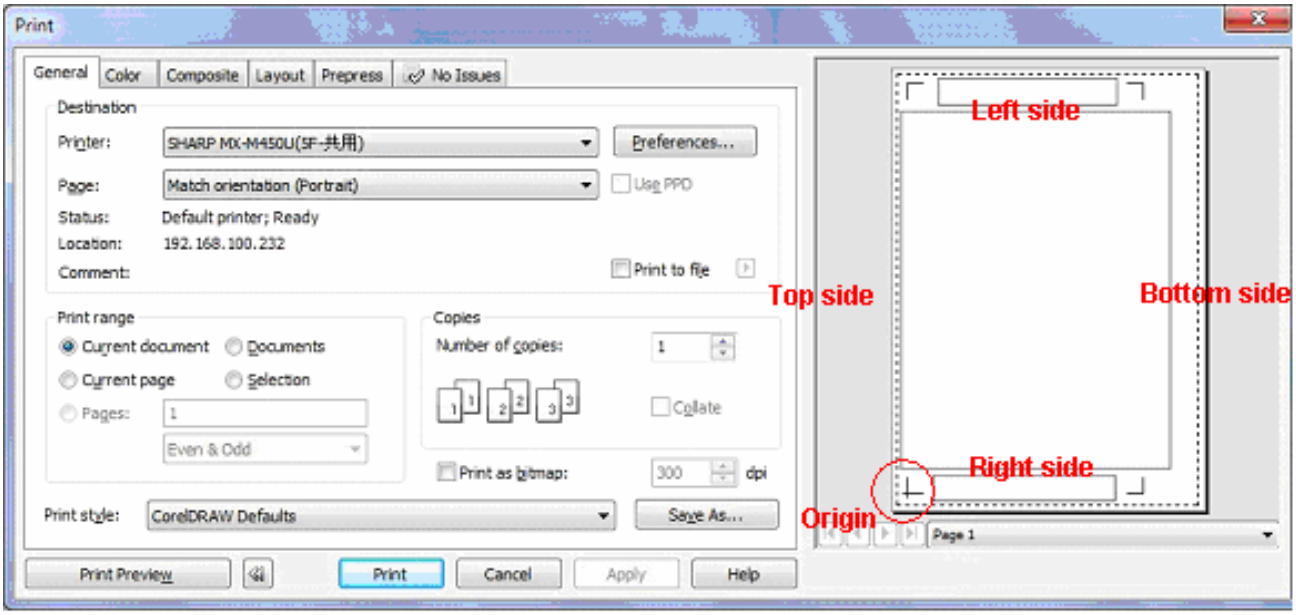


Workable area

It allows users to extend the registration mark when editing graphics.

For A4 size media sheet, the workable area is 2.5mm extended from the registration mark on left and right sides and 4.5mm extended from the registration mark on top side. On the bottom side, it is suggested to leave at least 25mm margin from the edge of media sheet to prevent sheets dropping or any error occurred while media sizing.

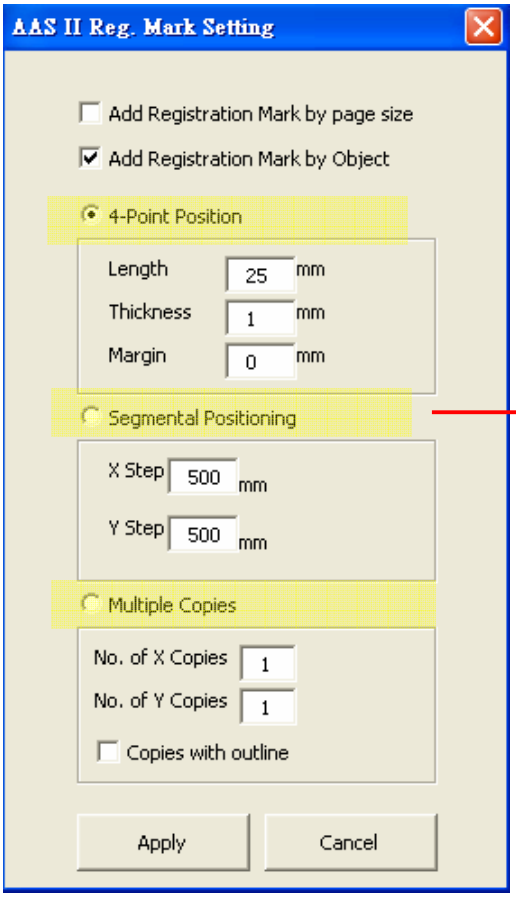
For A3 size media sheet, the workable area is 10mm extended from the registration mark on the left side, 9mm extended from the registration mark on the right side and 11mm extended from the registration mark on top side. On the bottom side, it is suggested to leave at least 25mm margin from the edge of media sheet to prevent sheets dropping or any error occurred while media sizing.



NOTE: Select “**Edge**” mode when media sizing to allow the media sheet to be unrolled. If you select “**Single**” mode, the media sheet will not be able to be moved back and hence fail to be detected by front paper sensor.

Add Registration Mark by Object

If you tick “Add Registration Mark by Object”, you will be offered three options of registration marks as shown below.



4-Point Positioning

- Length: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm
- Margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm

Segmental Positioning

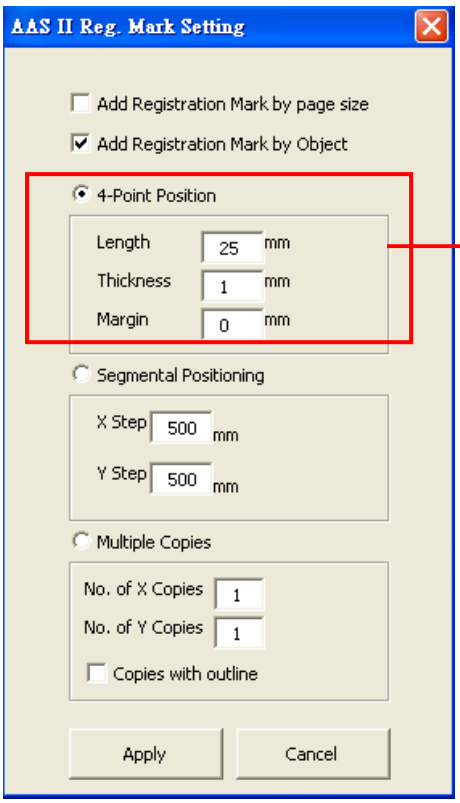
- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline：To show outlines of image graphics

Note: The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Segmental Positioning” or “Multiple Copies”.

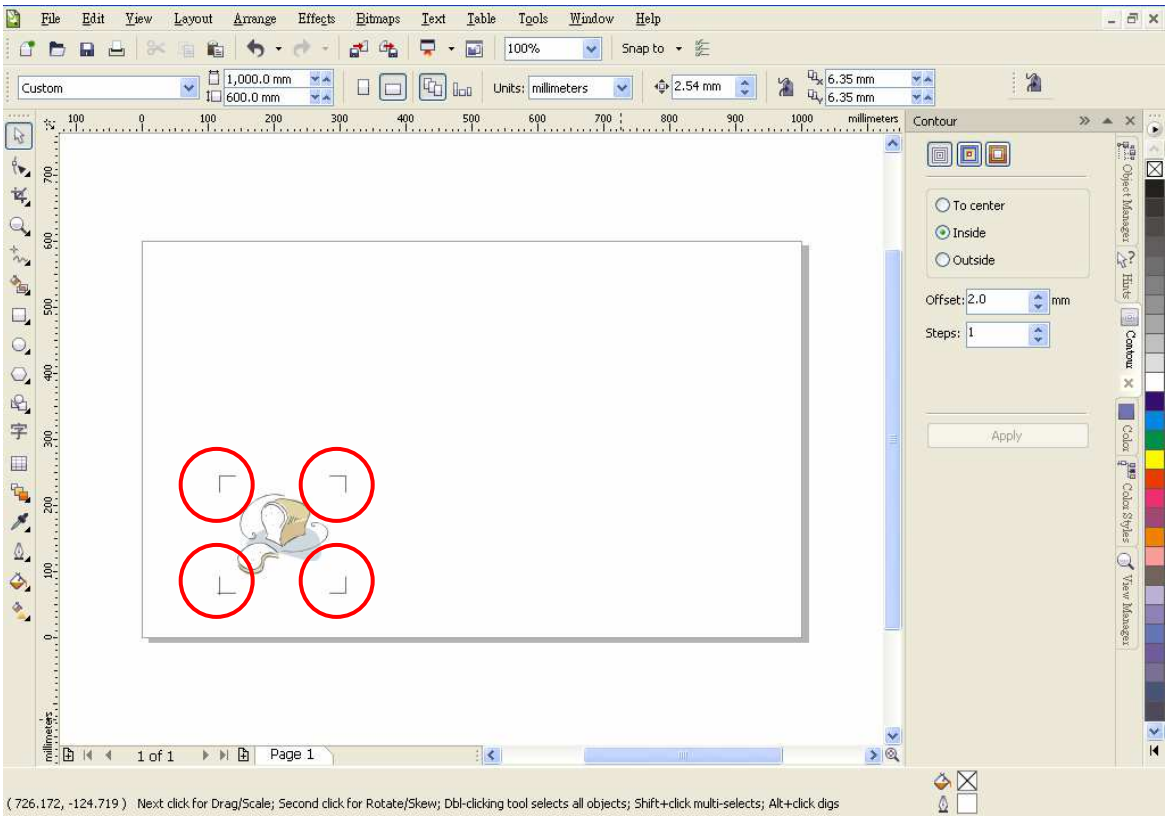
4-Point Positioning



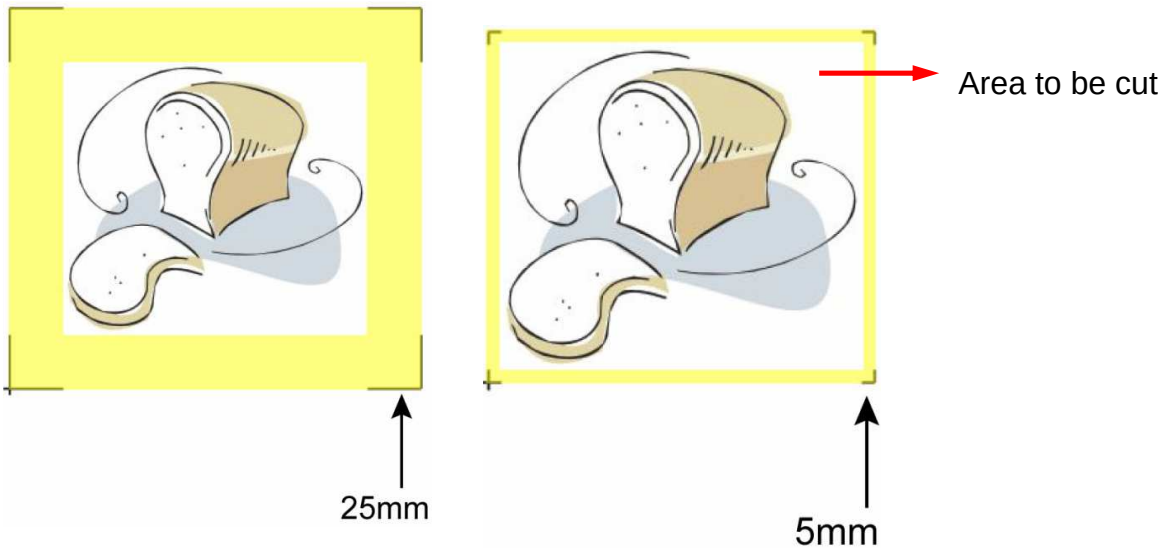
4-Point Positioning

- Length: The length of marks
  - → Range: 5mm~50mm
  - → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  - → Range: 1mm~2mm
  - → Optimized Setting: 1mm
- Margin: The distance between marks and images
  - → Range: 0mm~50mm
  - → Optimized Setting: 5mm

The system will create the 4 marks as shown in the picture below.


File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
Contour
To center
Inside
Outside
Offset: 2.0 mm
Steps: 1
Apply
Page 1
(726.172, -124.719) Next click for Drag/Scale; Second click for Rotate/Skew; Dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs

Note:
To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (5mm minimum) when you apply 4-Point Positioning (see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



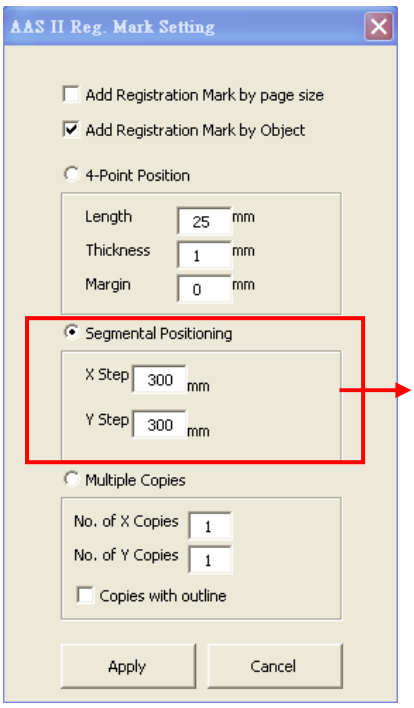
Page size (unit: mm)	Suggested mark length (unit: mm)
A6 (105 x 148)	5
A5 (148 × 210)	8
A4 (210 × 297)	11
A3 (297 × 420)	16
A2 (420 × 594)	23
A1 (594 × 841) and above	25*

Table 1
*25mm is the suggested value for the registration mark length

2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

3. If you change the paper size, you will have to reset the registration marks otherwise the previous setting will be applied.

Segmental Positioning

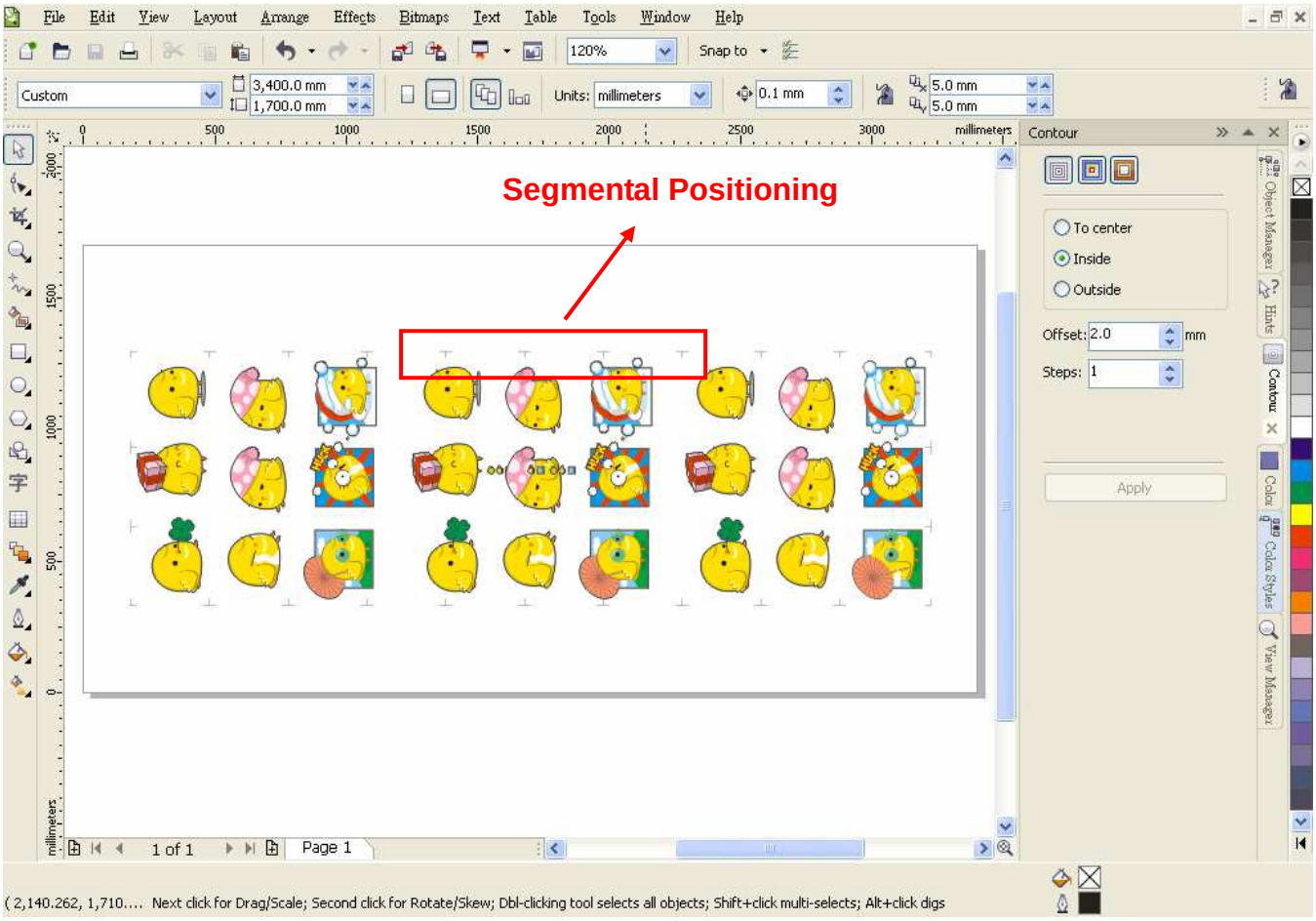


For precise cutting quality, it is suggested to select “Segmental Positioning” when you are working on an extra long or large-sized image to increase cutting accuracy.

Segmental Positioning

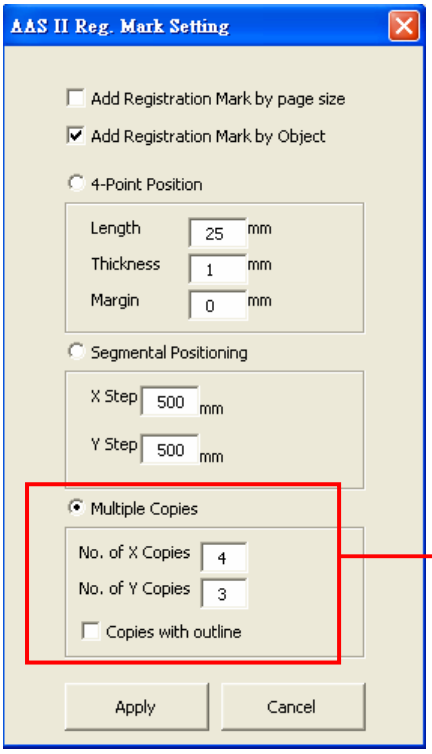
- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

The system will create the as shown in the picture below



Multiple Copies

It is suggested to select “Multiple Copies” when you would like to make several copies of one image on your material to increase cutting accuracy.



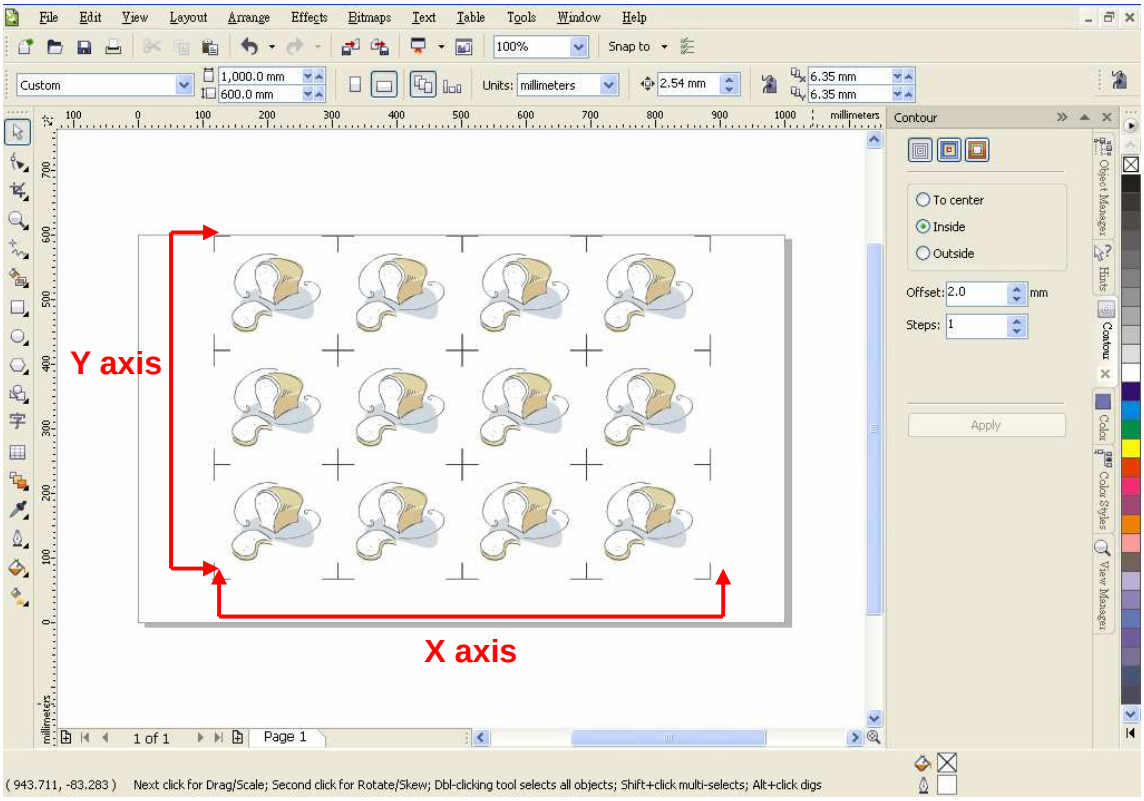
Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis

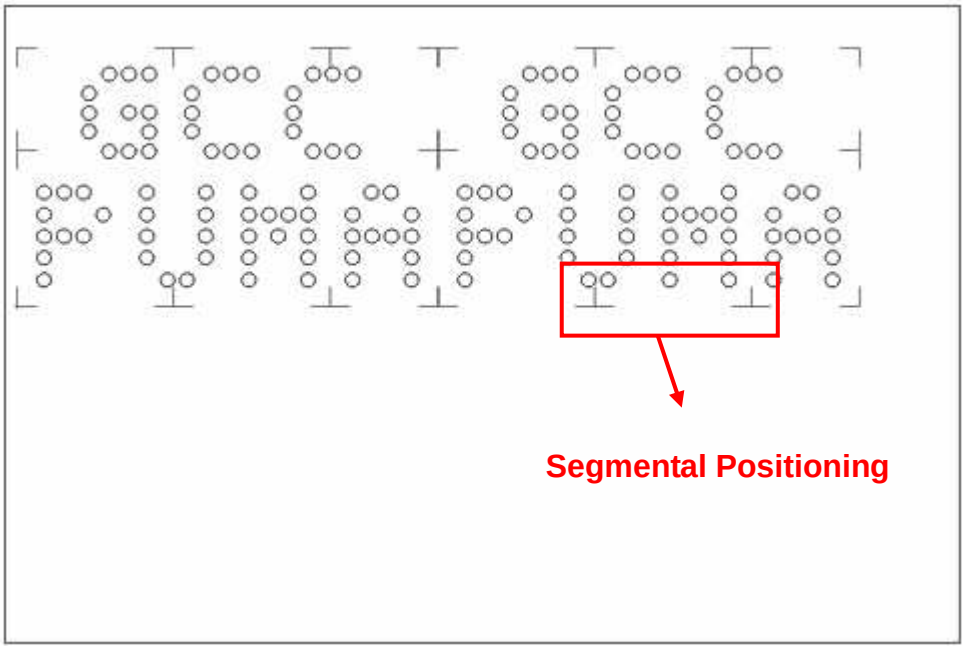
  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)

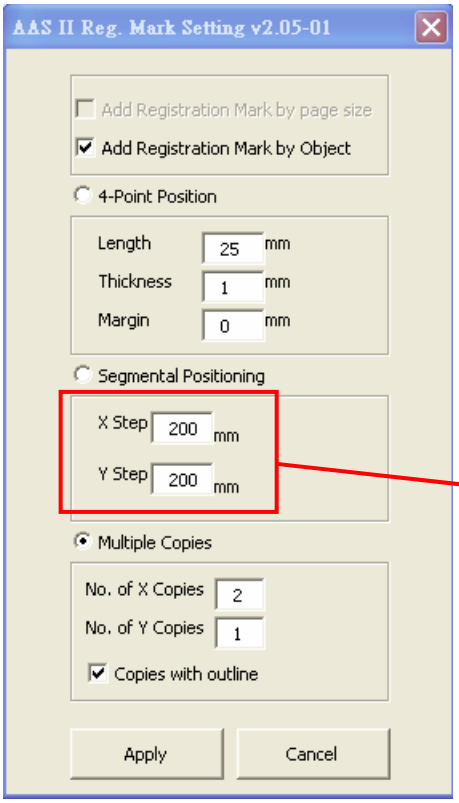
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline：To show outlines of image graphics

The system will create the as shown in the picture below.



Segmental Positioning will be applied to Multiple Copies when the object to be copied is of large size (with the length or width over 200mm) to increase the accuracy of registration mark detection.



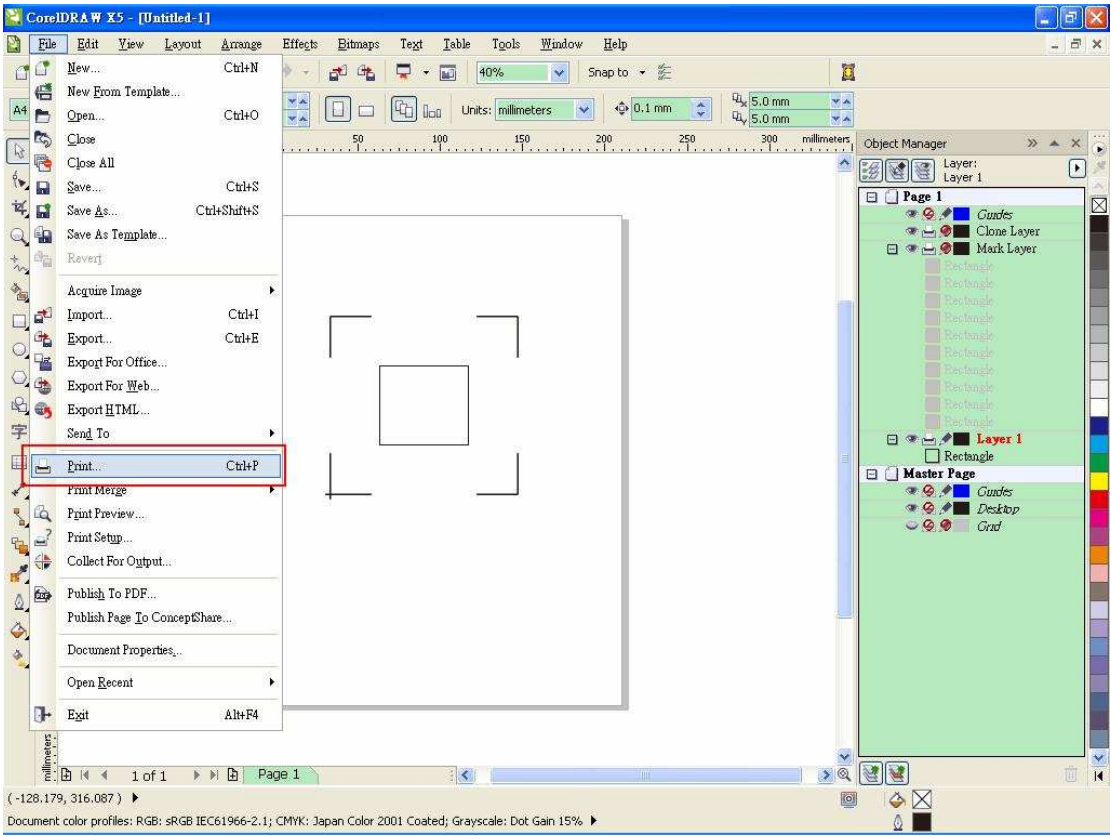


Please make sure you are happy with the settings for Segmental Positioning as these will be applied to the copies created.

Contour cutting through CorelDraw

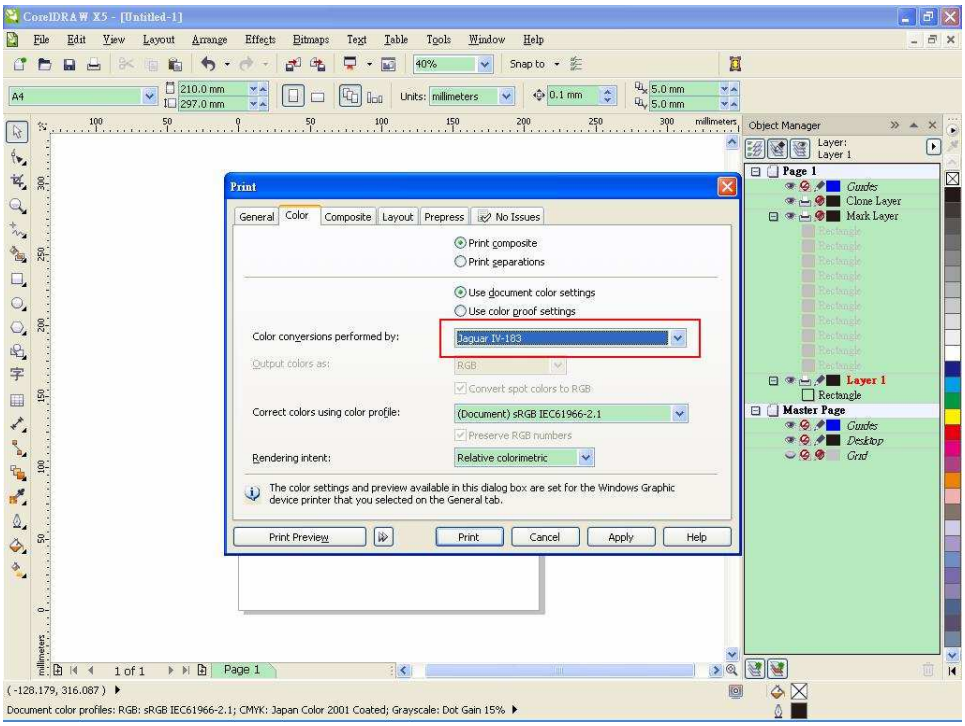
Step 1: Position the paper with registration marks printed by your printer on the GCC cutter.

Step 2: Select “Files→Print”.

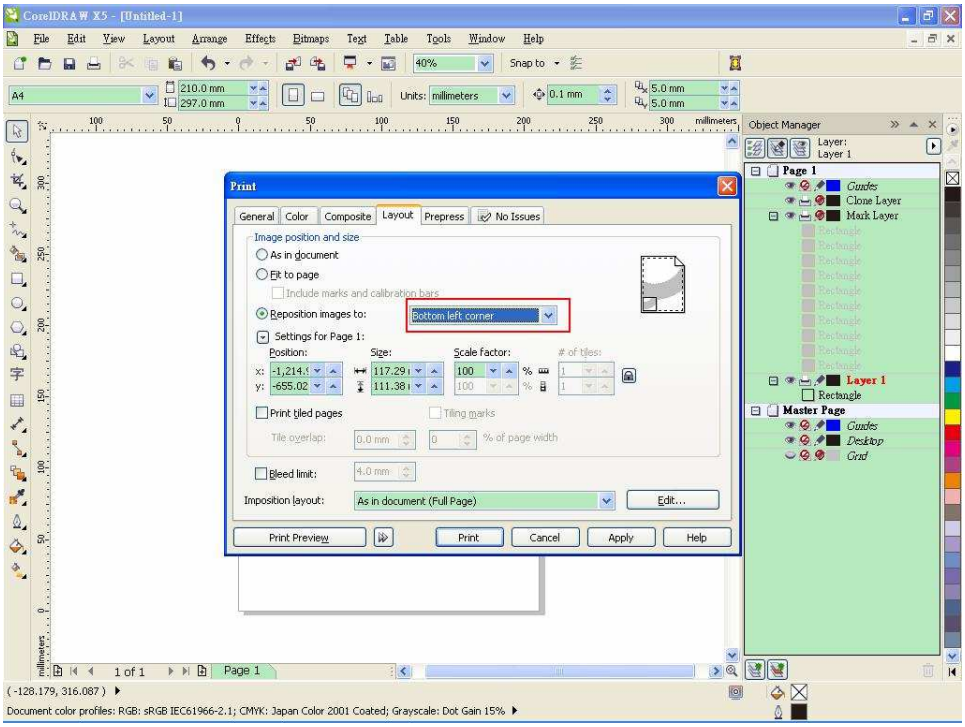


Please note that if you use CorelDraw X5, you must follow the steps below.

Click the “color” page and go to the “Color conversions performed by:” and then select the model name of you cutter.



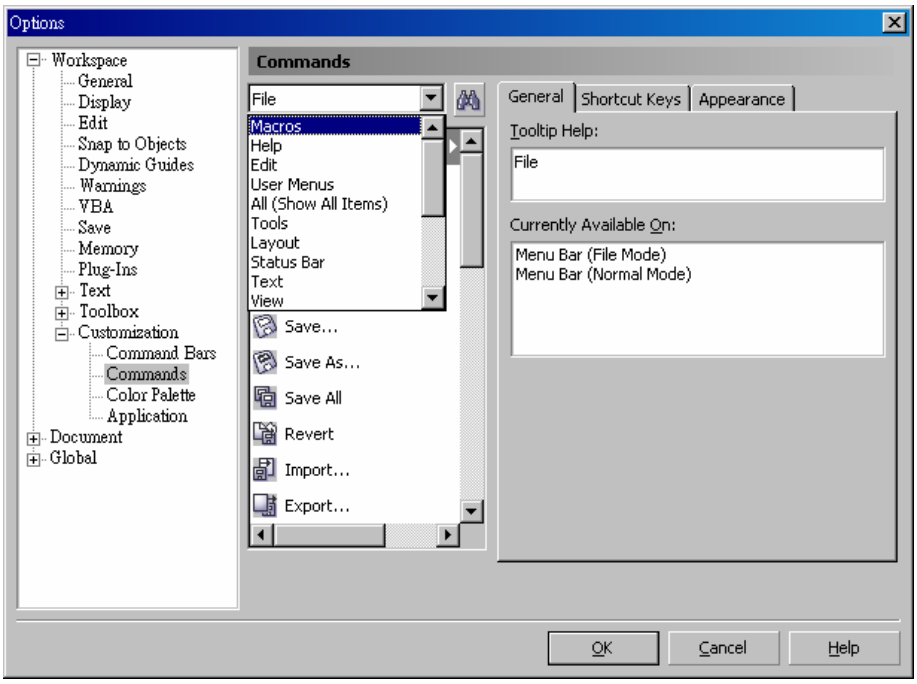
Step 2: Go to the “Layout” page and select Bottom left corner at “Reposition images to”.



Step 3: Click “Print”.

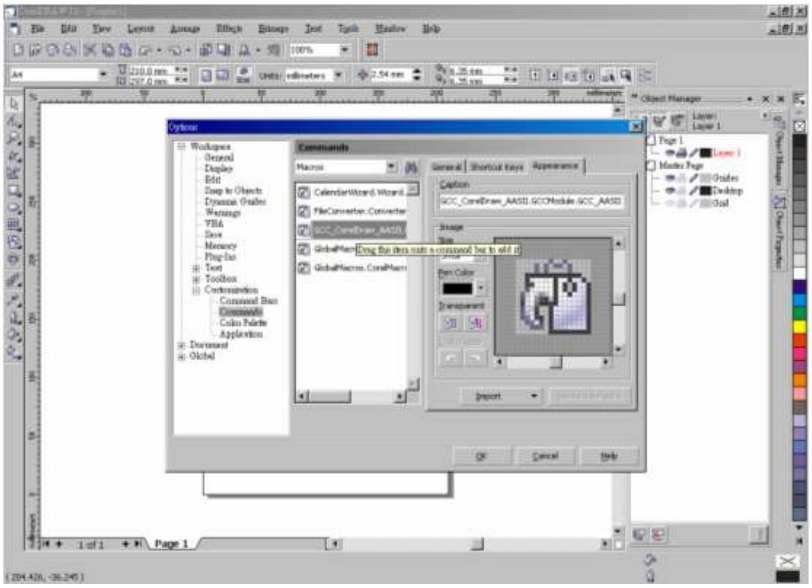
<u>You can also add a Hot Icon for the AAS II Plug-in</u>

Step 1: Select “Tools→Customization→Commands→Macros”.



Step 2: Choose【GCC_CorelDraw_AASII.GCCModule.GCC_AASII】and drag it to the “commands” bar.

Step 3: If you want to have a different icon, select “Tools→Customization→Commands→ Appearance” to import a graphics for use as the icon. Choose an icon and press OK to complete this setting.



SignPal 10.5 Instruction

The new SignPal 10.5 Software is Windows System compatible and all versions support the AAS II contour cutting function of RX, Jaguar IV, Puma III, Expert 24 LX, and Expert 52 LX cutting plotters.

SignPal 10.5 Instruction Index:

[1] Installing the SignPal 10.5 software
[2] Set up your GCC Cutter on Production Manager
-- SignPal AAS II Quick Start
[3] SignPal 10.5 Feature Lists

[1] Installing the SignPal 10.5 software

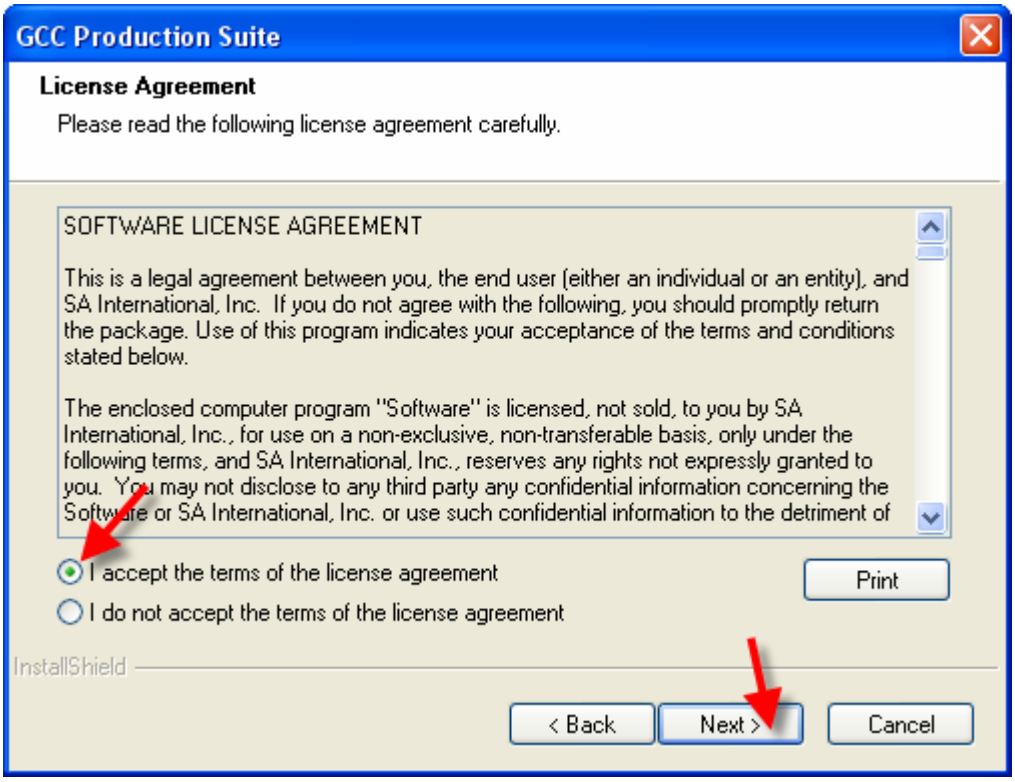
To install the software, you must have Administrator privileges. To use the software, you must have Administrator or Power User privileges. See your Windows user guide for more information.

1. Make sure the dongle is inserted.
2. Uninstall any previous version of the software.
3. Insert the Installation DVD.
4. Select a language and click **OK**.
5. Click **Next**.

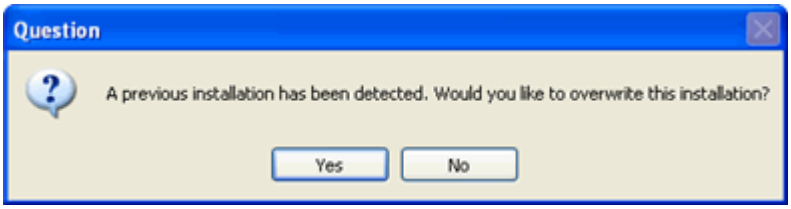
Please note that the pictures below of SignPal 10.5v1 serve as illustrations in the following steps.

GCC Production Suite
Welcome to the InstallShield Wizard for GCC Production Suite
The InstallShieldR Wizard will install GCC Production Suite on your computer. To continue, click Next.
< Back
Next >
Cancel

6. Read the Software License Agreement and select **I accept the terms of the license agreement** and click **Next** to accept.

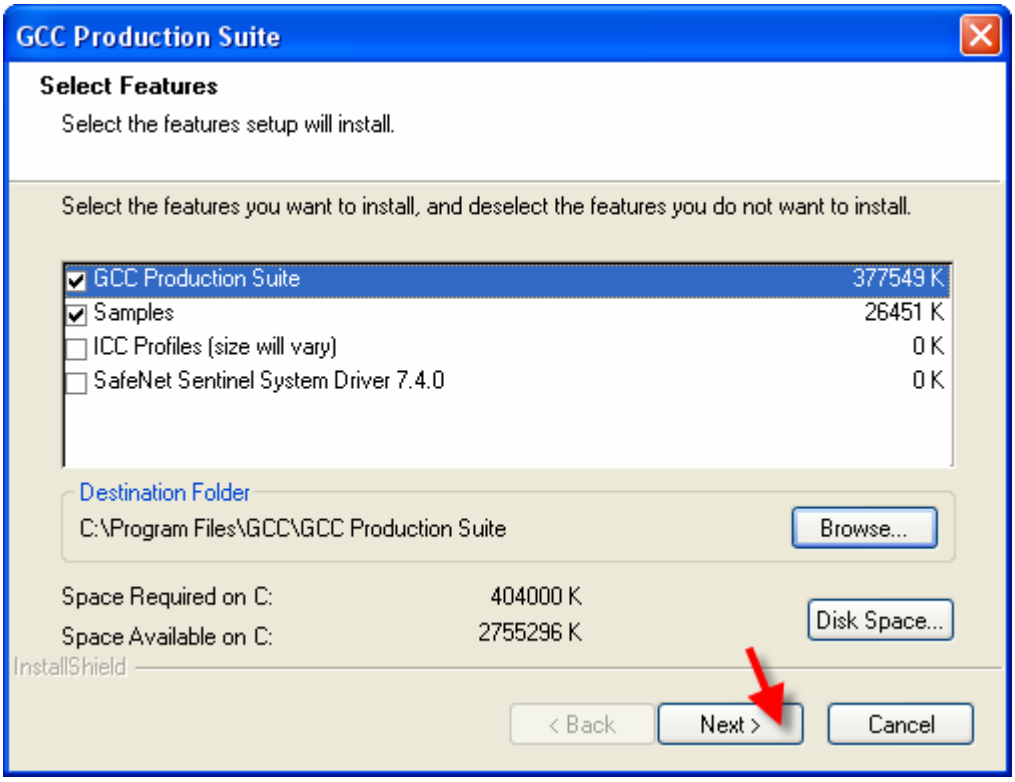

GCC Production Suite
License Agreement
Please read the following license agreement carefully.
SOFTWARE LICENSE AGREEMENT
This is a legal agreement between you, the end user (either an individual or an entity), and SA International, Inc. If you do not agree with the following, you should promptly return the package. Use of this program indicates your acceptance of the terms and conditions stated below.
The enclosed computer program "Software" is licensed, not sold, to you by SA International, Inc., for use on a non-exclusive, non-transferable basis, only under the following terms, and SA International, Inc., reserves any rights not expressly granted to you. You may not disclose to any third party any confidential information concerning the Software or SA International, Inc. or use such confidential information to the detriment of
I accept the terms of the license agreement
I do not accept the terms of the license agreement
Print
InstallShield
< Back
Next >
Cancel

7. If you did not have any previous versions of the software installed, skip to the next step. If you still have a previous version of the software installed, you will be prompted to overwrite the existing installation. Click **Yes** to overwrite any previous installation of the software.



8. Select the features of the software that you want to install and click **Next**:

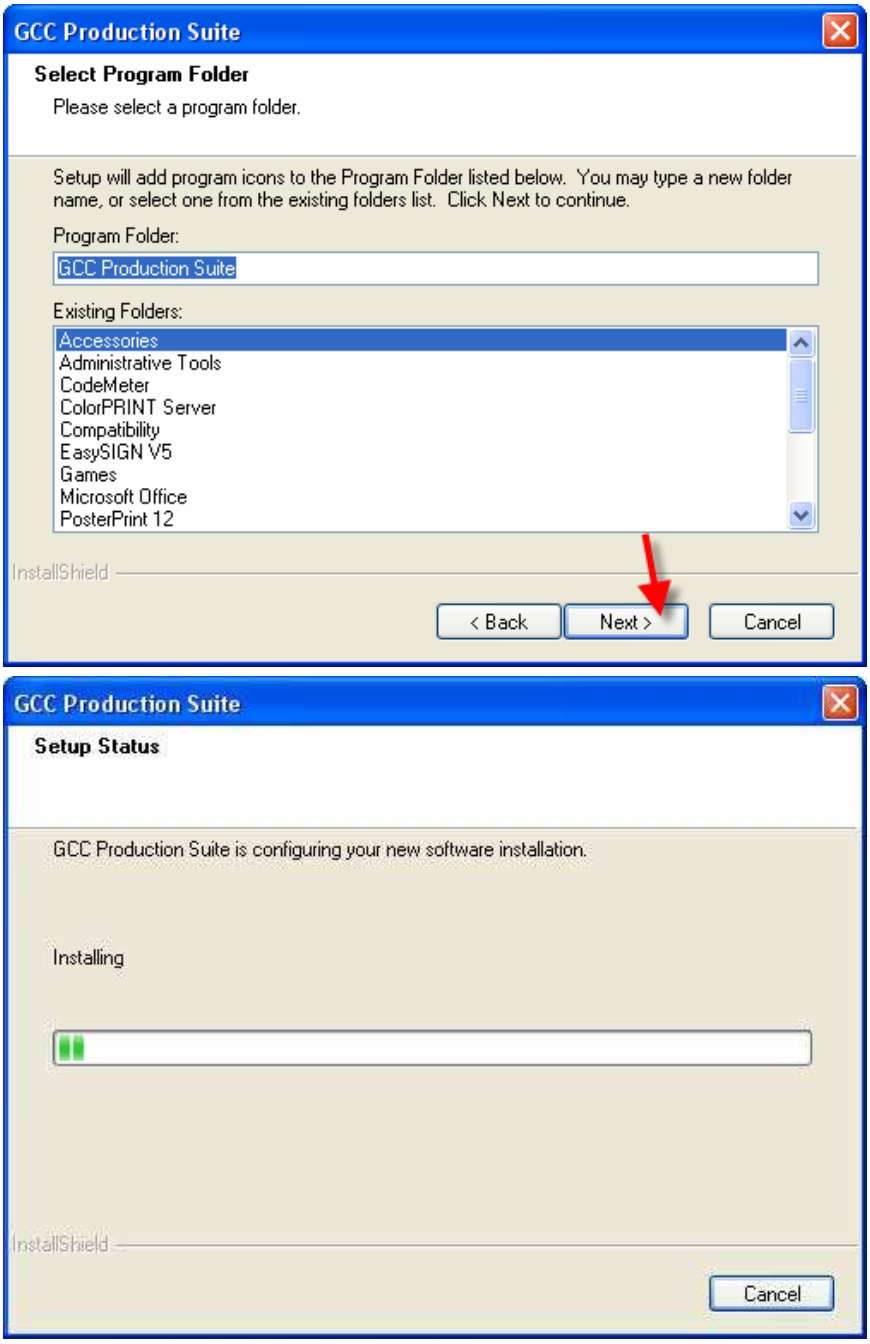
- Check **GCC Production Suite** to install the software.
- Check **Samples** to install sample files.
- Check **SafeNet Sentinel System Driver** to install the software driver for this key. If you do not use this type of key, you do not need to install this driver.


GCC Production Suite
Select Features
Select the features setup will install.
Select the features you want to install, and deselect the features you do not want to install.
GCC Production Suite 377549 K
Samples 26451 K
ICC Profiles (size will vary) 0 K
SafeNet Sentinel System Driver 7.4.0 0 K
Destination Folder
C:\Program Files\GCC\GCC Production Suite
Browse...
Space Required on C: 404000 K
Space Available on C: 2755296 K
Disk Space...
InstallShield
< Back
Next >
Cancel

A. To change the default destination folder, click **Browse** and choose a new destination folder.
B. To check that the drive you are installing to has enough space for the installation:
    a. Click **Disk Space**.
    b. From the drop-down menu, select the drive you want to install to, and verify that it has enough space for the installation.
    c. Click **OK**. The installation drive changes to the selected drive when you click **OK**.

9. Select the Program folder where the shortcut for the software will appear. A new folder is automatically created for the product.

10. Click **Next** to install the software.

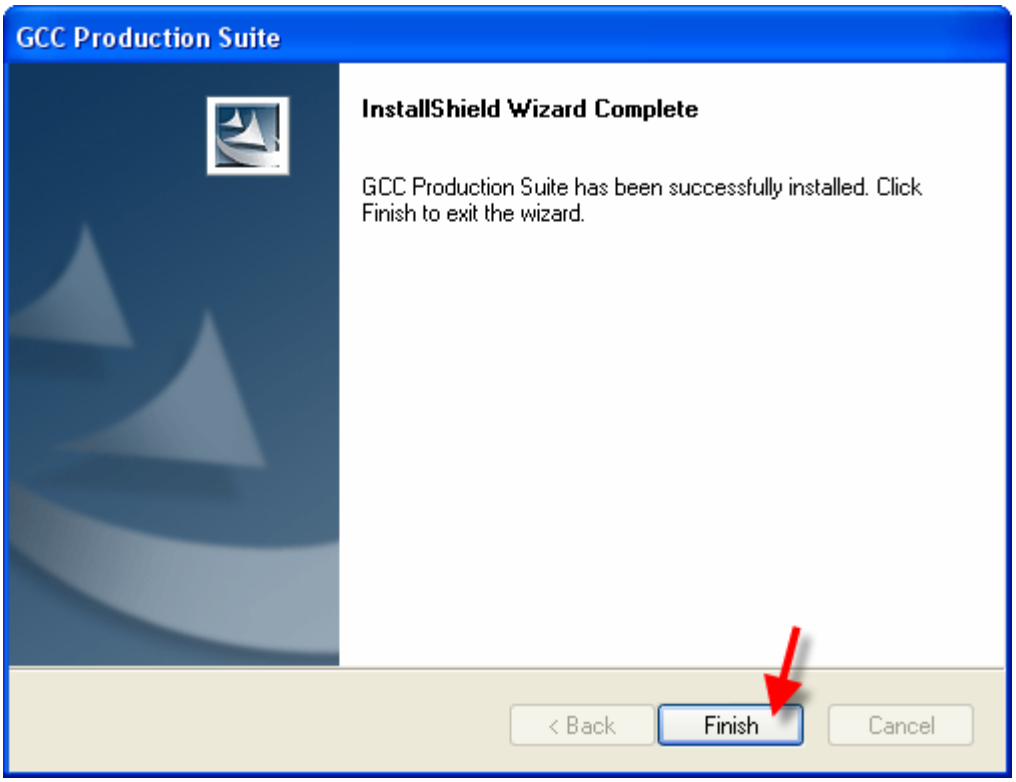


11. Once the installer is finished installing, the **Install Manager** opens. The Install Manager will automatically enable you to access the software and any optional features.

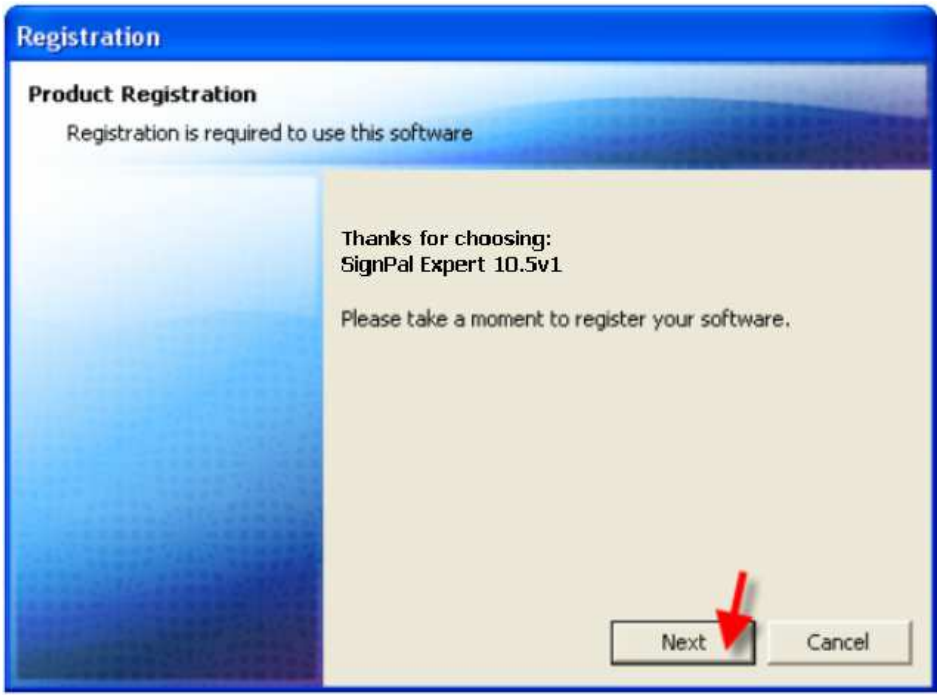
12. Click **Done**.

13. Check which icons and preferences you want to install:

- Check **Install to desktop** to install a shortcut for the software on the desktop.
- Check **Install to startup items** to install a shortcut for the software in the Startup folder of the Start menu. If this is done, each time the computer starts up, the software will automatically start up and minimize itself, displaying an icon in the system tray of the Windows system tray.
- Check **Clear Application's previous preferences** to clear the preferences or clear the check box to retain old preferences.
- Click **OK**.



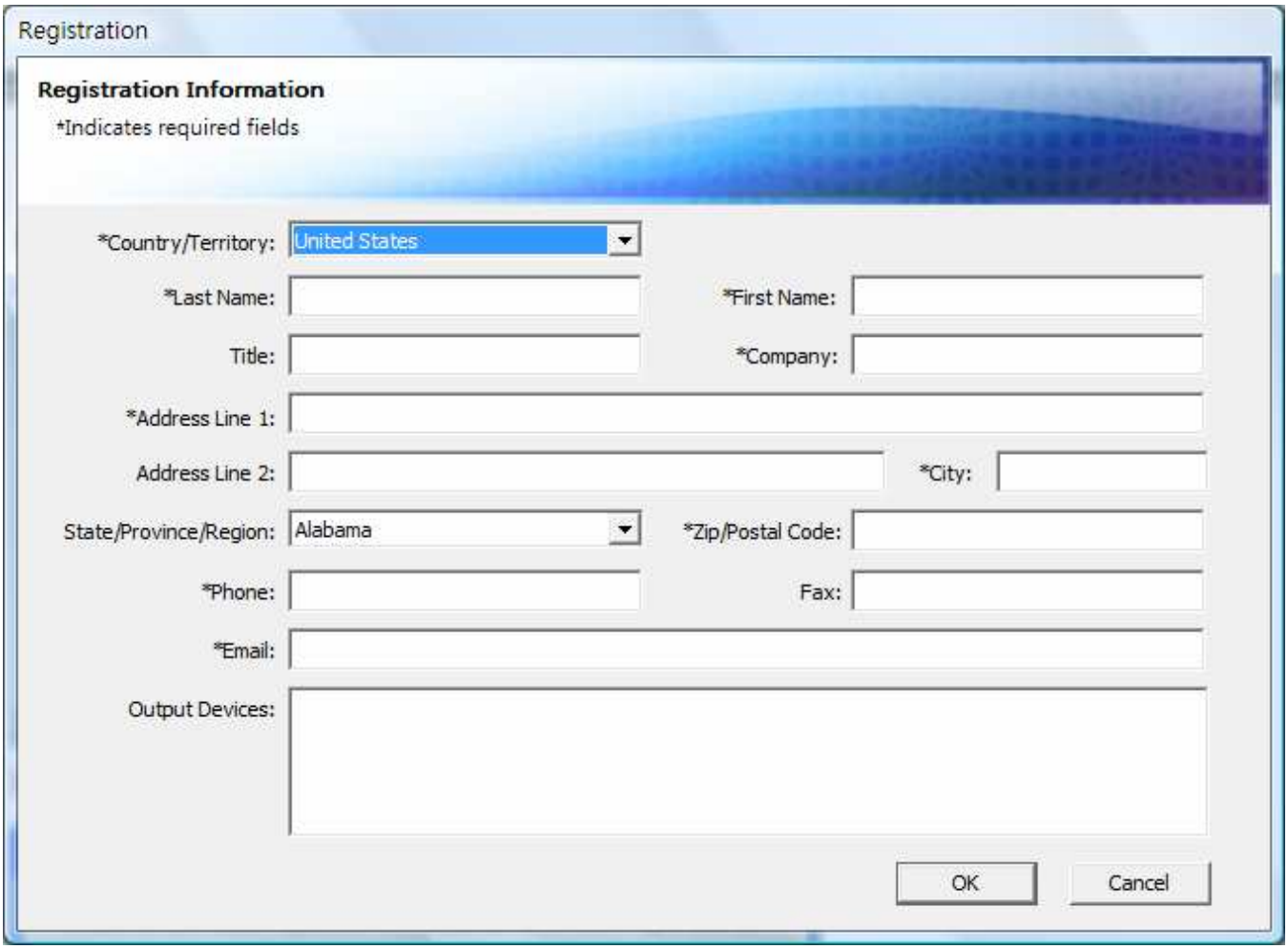
14. Open SignPal 10.5v1



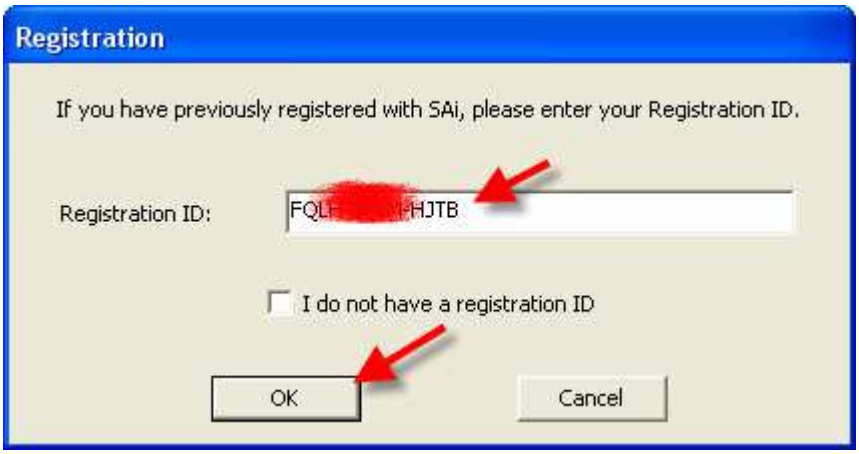
15. As you have not registered before, please check on the box at bottom to register a new account.

Registration
If you have previously registered with SAi, please enter your Registration ID.
Registration ID:
I do not have a registration ID
OK
Cancel

16. Input your personal information to complete the online registration.

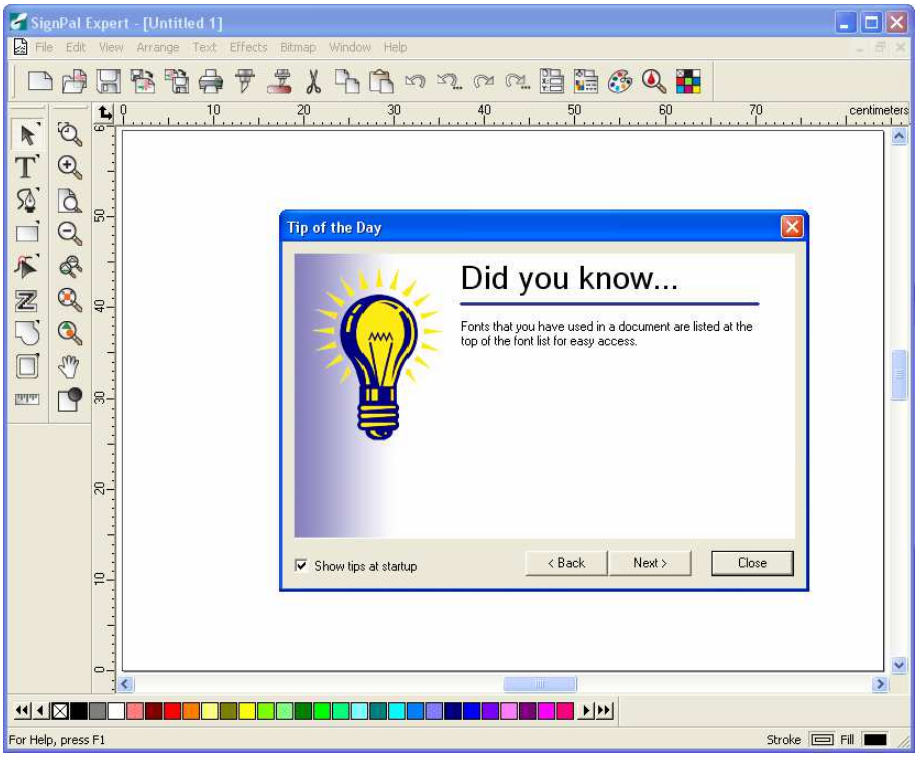


17. If you have registered before, please enter your Registration code as below to open SignPal 10.5v1 software.



SAi
SignPal 10.5
Sign Making Software

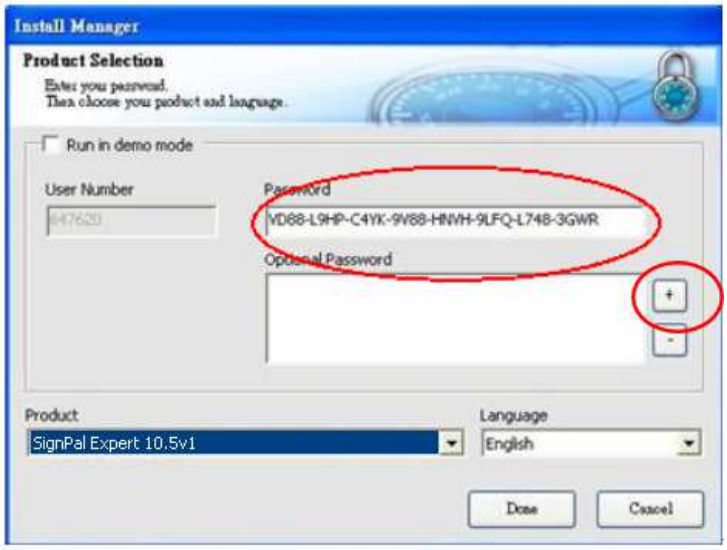
SignPal Expert
SignPal Expert 10.5 v1
Runtime hours until password expires: 582.51
Licensed to:
YWHX-JDNM-
-WPCJ-TFV7-KYUP-YRGF
OK


SignPal Expert - [Untitled 1]
File Edit View Arrange Text Effects Bitmap Window Help
centimeters
Tip of the Day
Did you know...
Fonts that you have used in a document are listed at the top of the font list for easy access.
Show tips at startup
< Back
Next >
Close
For Help, press F1
Stroke
Fill

Note:

1. Steps 15-17 will only be compulsory for users who have never registered before.
2. You will be prompted to the demo version registration process if the version of your dongle does not match that of the software.

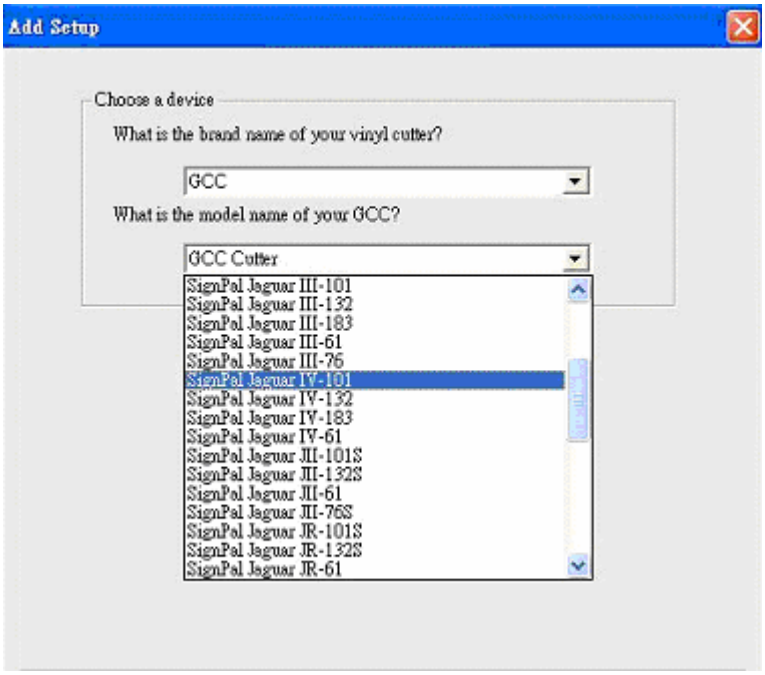
Do one of the following:

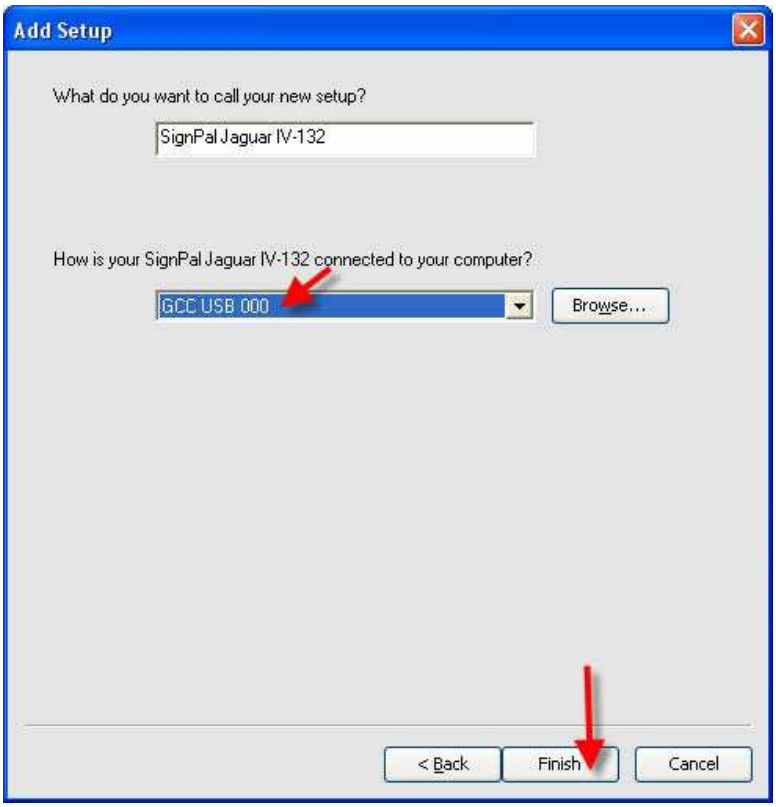


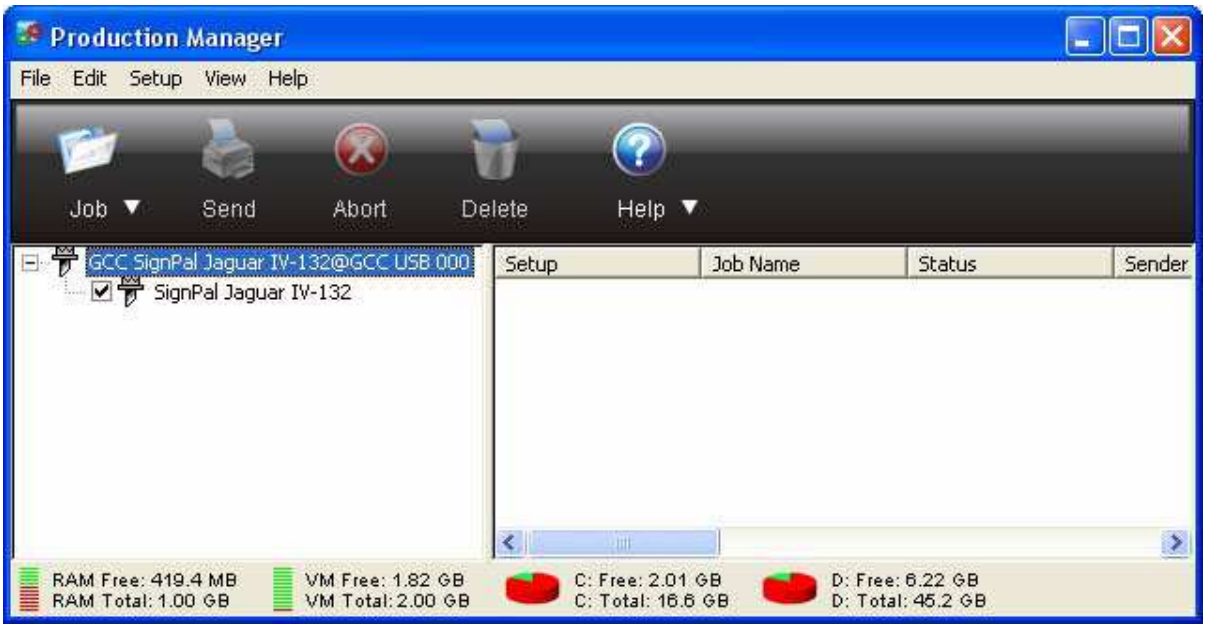
- Check **Run in demo mode** to run a demo version of any available products in any available language.
- Ignore the password that's shown in the box, use the **Add** button to enter any additional passwords in the Optional Password section to unlock optional features. If you purchased additional options or you are using a different dongle than the one you inserted when the software was run, you may enter the option passwords in this field to upgrade or access your software.
- Click **Done**.

[2] Set up your GCC Cutter on Production Manager

1. Open Production Manager 10.5v1
2. Choose and set up your GCC cutter.
   (Note that AAS II System only works on RX, Jaguar IV, Puma III, Expert 24 LX, and Expert 52 LX.)

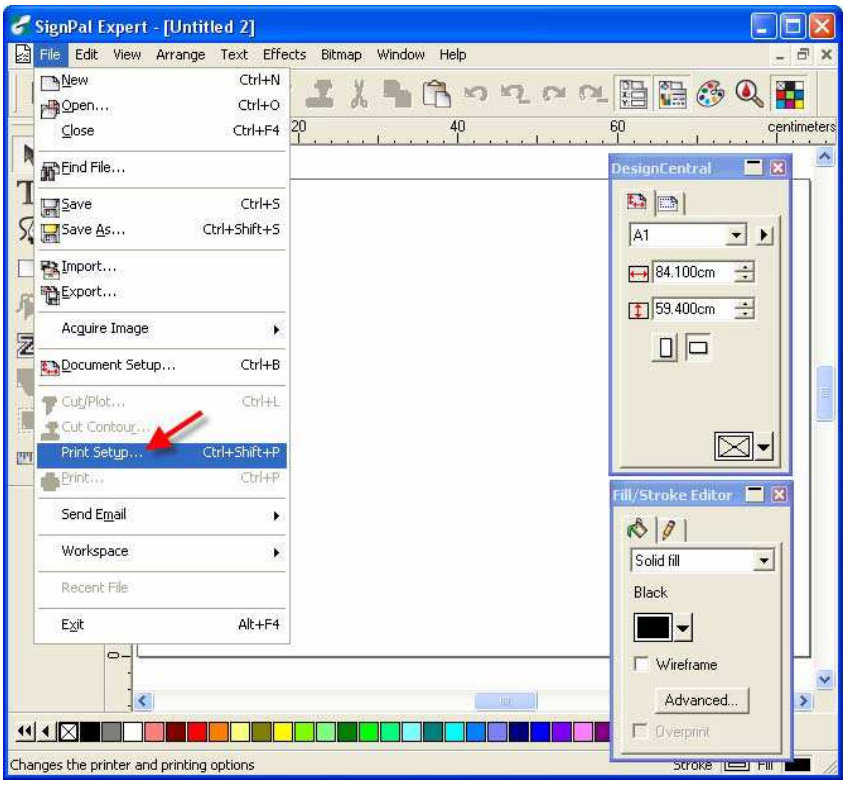



Add Setup
What do you want to call your new setup?
SignPal Jaguar IV-132
How is your SignPal Jaguar IV-132 connected to your computer?
GCC USB 000
Browse...
< Back
Finish
Cancel

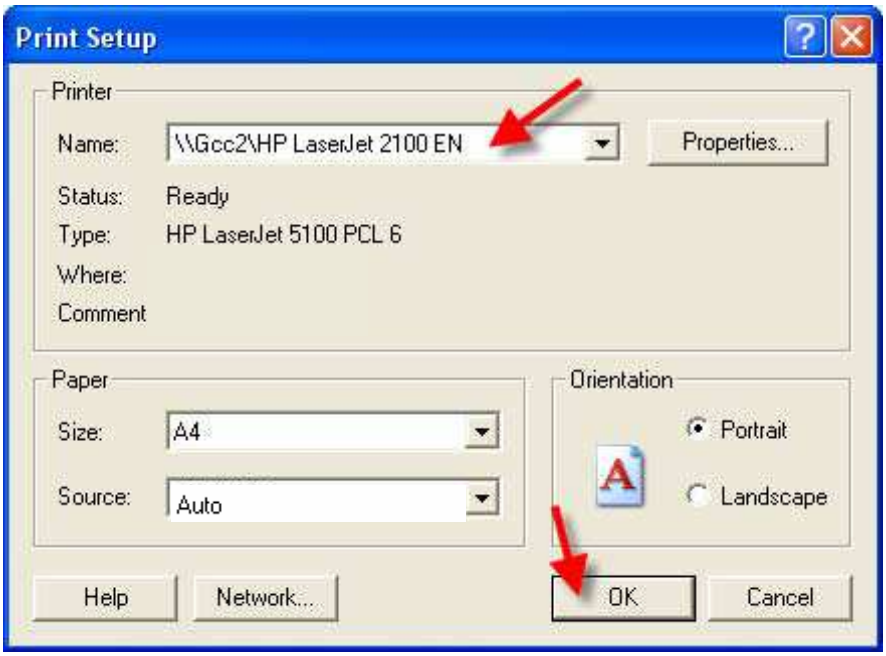

Production Manager
File Edit Setup View Help
Job
Send
Abort
Delete
Help
GCC SignPal Jaguar IV-132@GCC USB 000
SignPal Jaguar IV-132
Setup
Job Name
Status
Sender
RAM Free: 419.4 MB
RAM Total: 1.00 GB
VM Free: 1.82 GB
VM Total: 2.00 GB
C: Free: 2.01 GB
C: Total: 16.6 GB
D: Free: 6.22 GB
D: Total: 45.2 GB

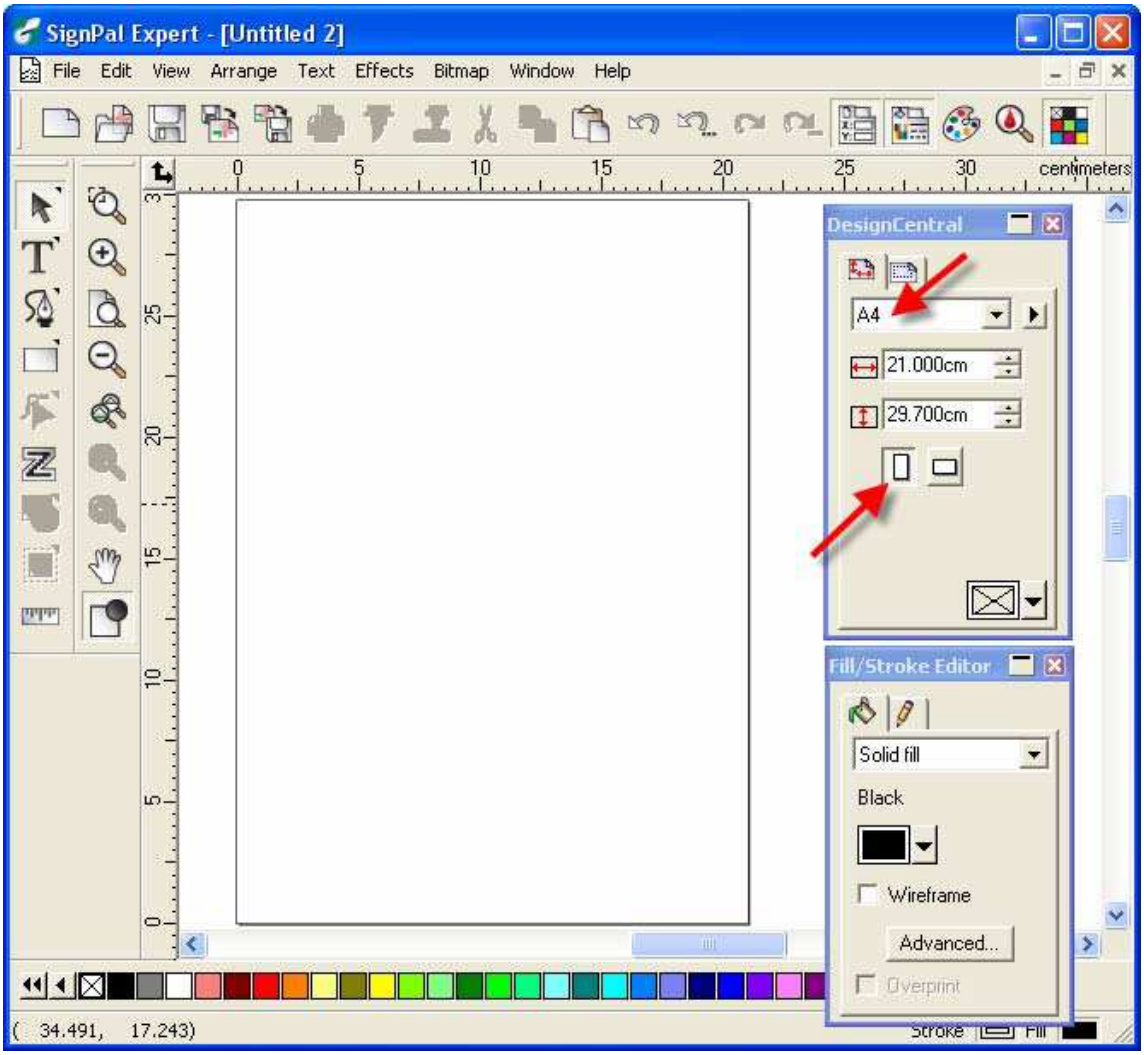
SignPal Expert
SignPal Expert 10.5 v1
Runtime hours until password expires: 582.51
Licensed to:
YWHX-JDNM-
-WPCJ-TFV7-KYUP-YRGF
OK

3. Select **File > Print Setup** in SignPal Software.



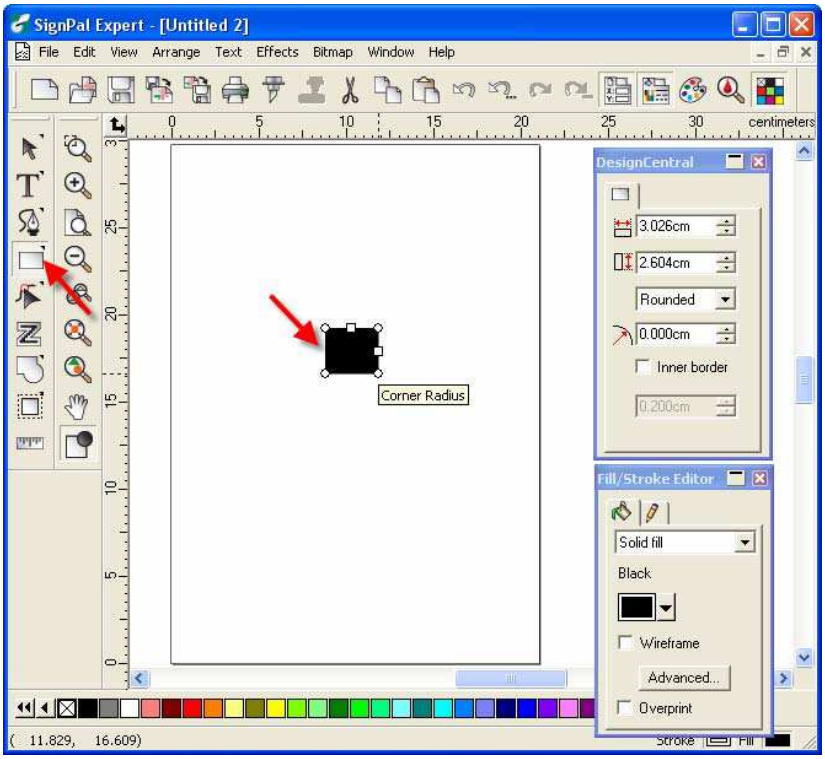
4. Select the printer and paper size.



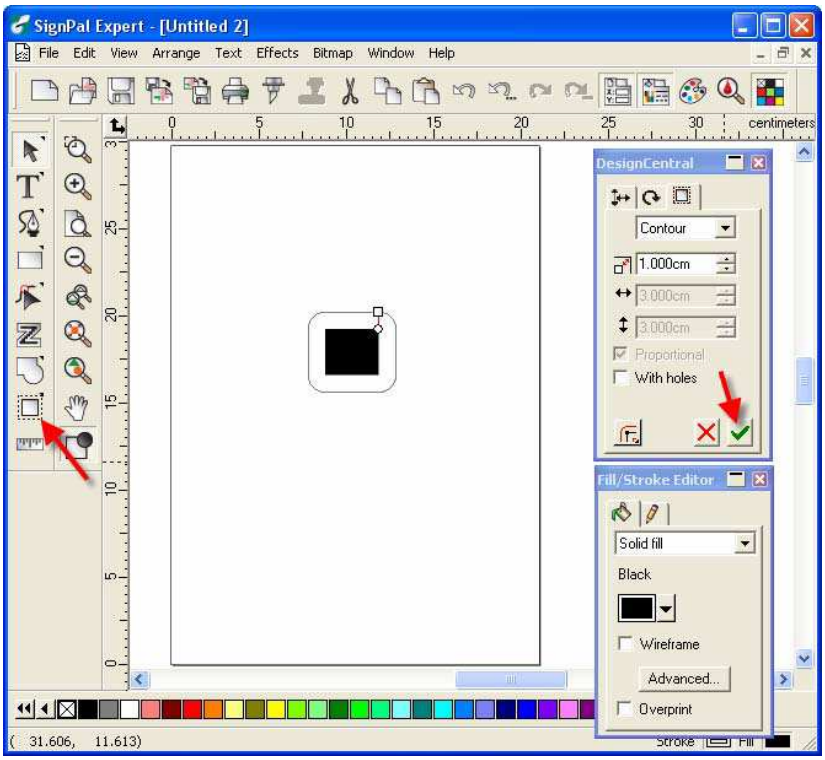


-- SignPal AASII Quick Start

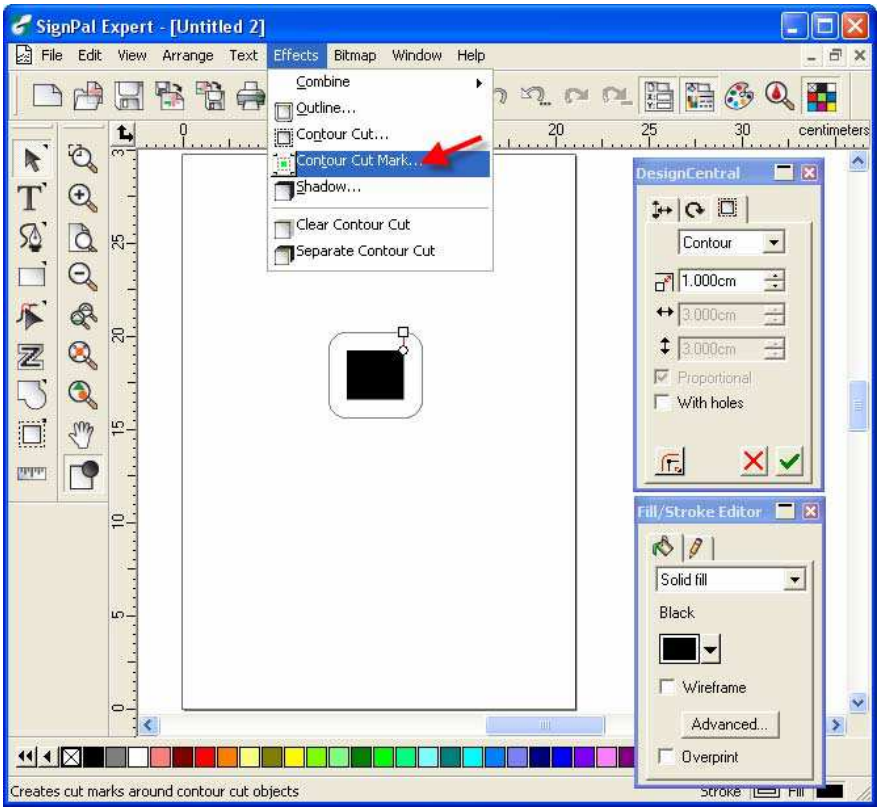
5. Use the **Rectangle Tool** to create a rectangle.



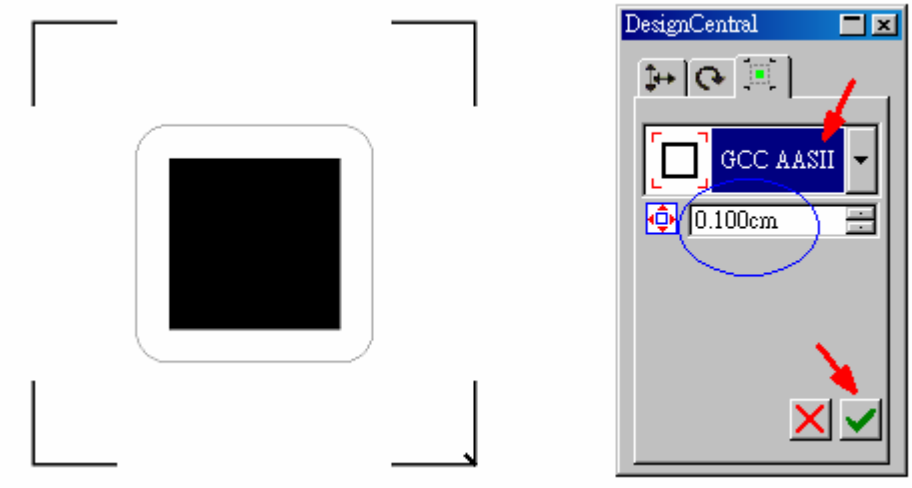
6. Select **Effect > Contour Cut**. Then click 'Apply' in DesignCentral window.



7. Apply the contour cut mark of GCC AASII by selecting **Effect > Contour Cut Mark**.



8. Select "**GCC AASII**" in SignPal DesignCentral window to create the AAS II registration marks (4-Point Positioning). Set the vales as 0.1cm or above and click '**Apply**' in DesignCentral window. The value is to define the distance between registration marks and image area. If the value is less than 0.1cm, it is likely that the image will overlap the marks and result in bad cutting quality.

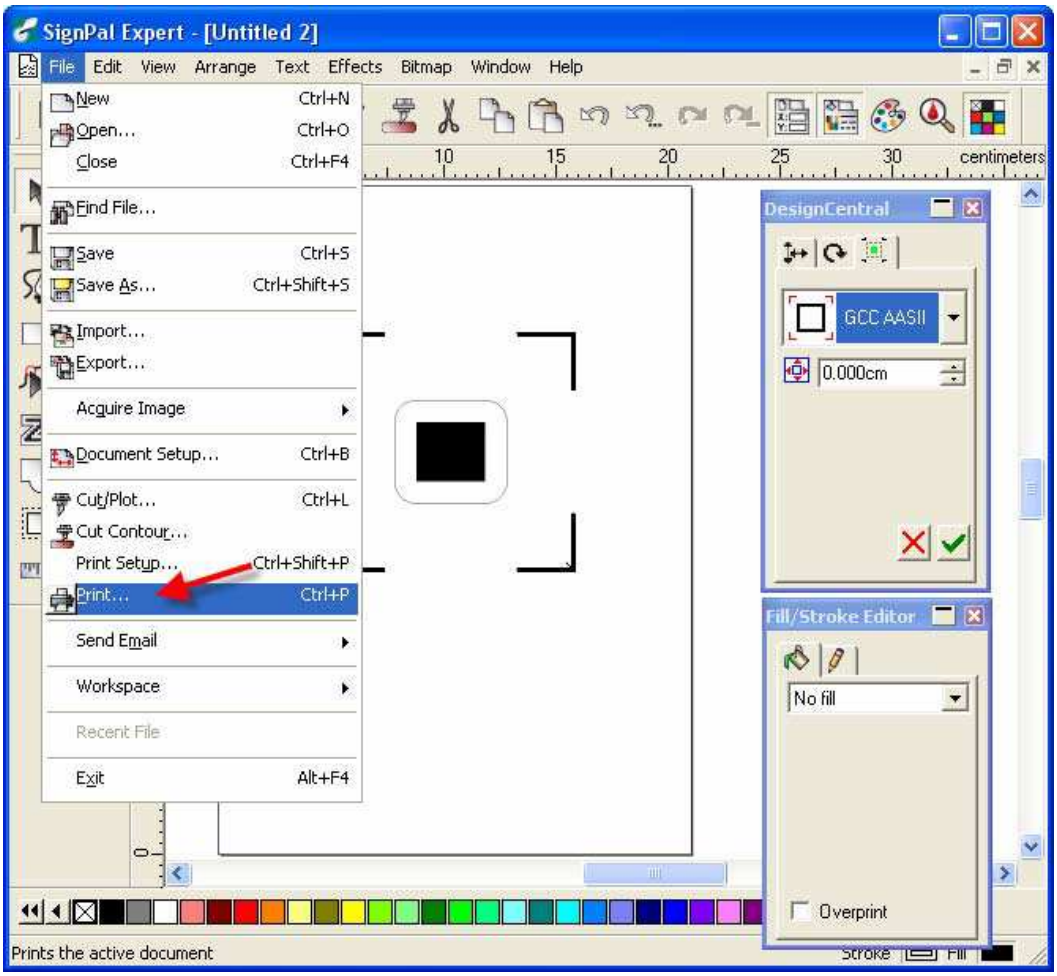


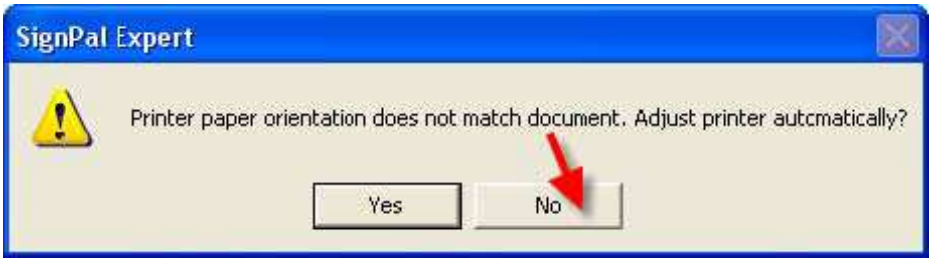
9. There are three types of GCC AASII registration marks: 4-Point Positioning, Segmental Positioning, and Multiple Copies. To make 'Segmental Positioning' marks, please select "**GCC**

Segmentation" in DesignCentral window and then click '**Apply**'.

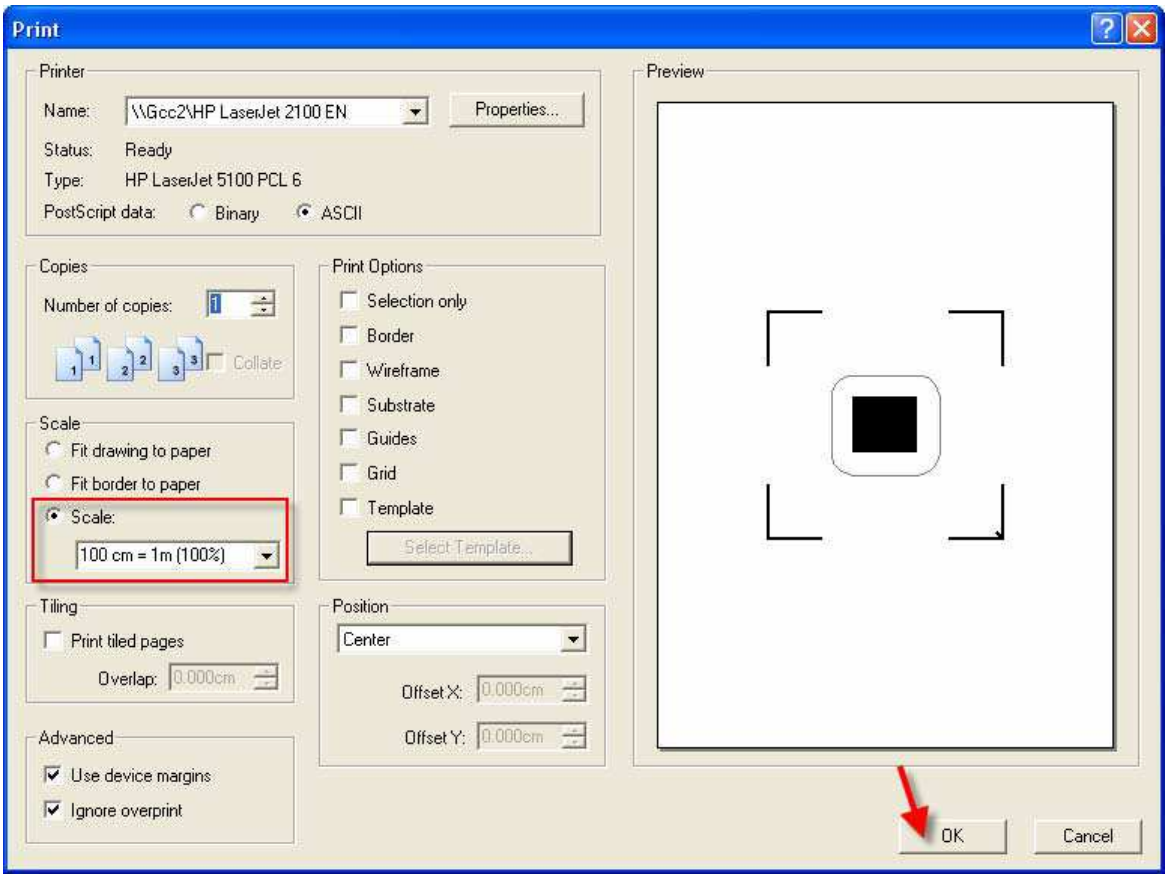
10. For 'Multiple Copies', this function is not available in SignPal. Currently the 'Multiple Copies' function is only available under CorelDraw plug-in.

11. Select **File > Print** to print out the image.

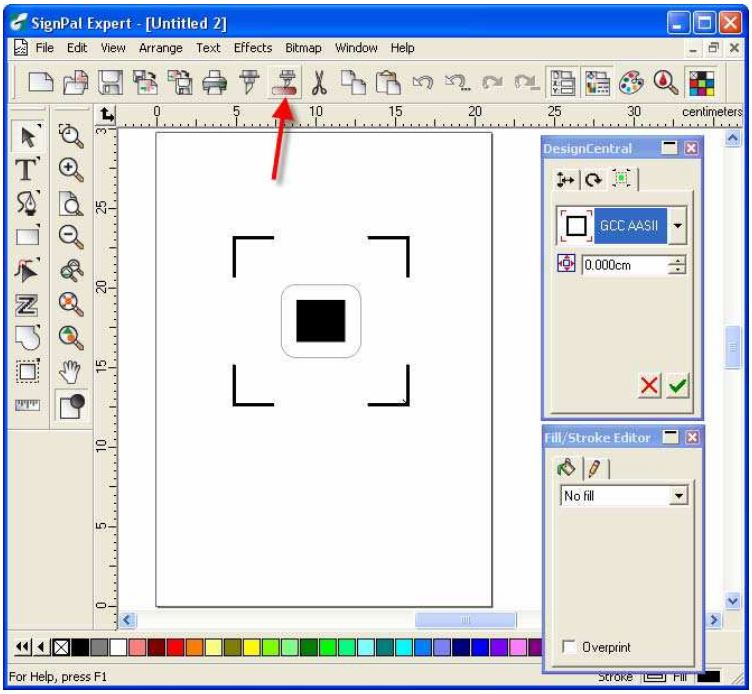




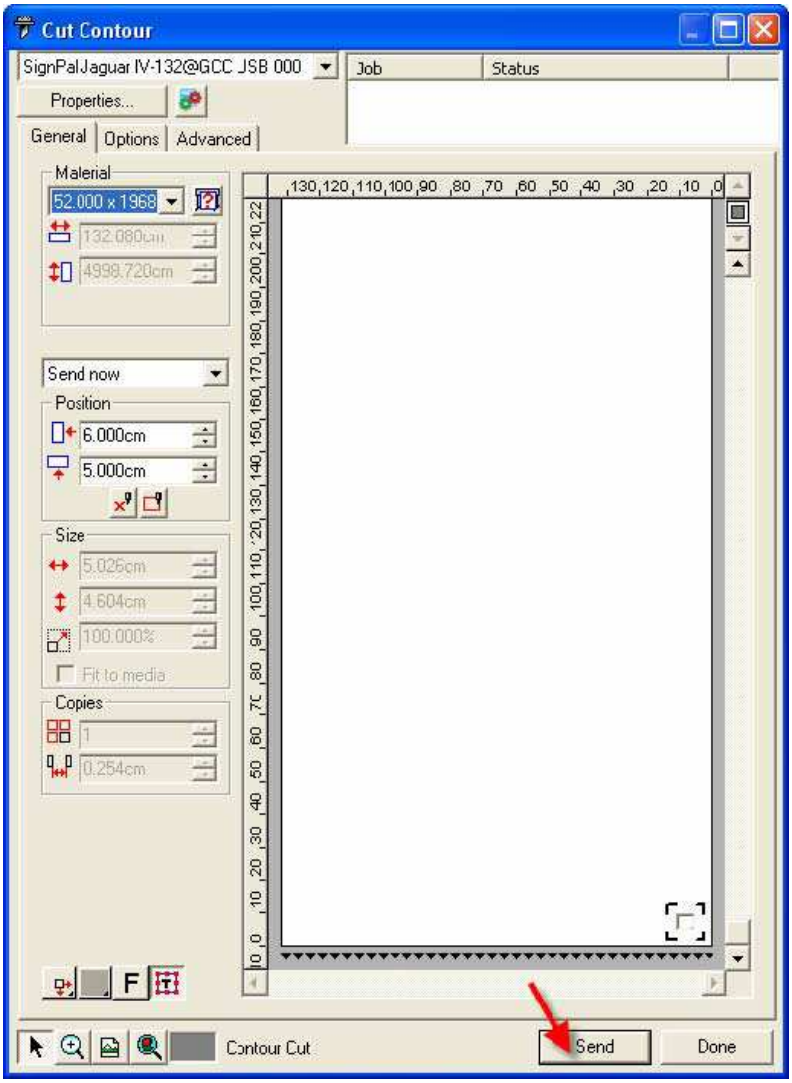
12. Set the Scale as 100cm =1m (100%) in Print page.



13. Load the printout vinyl on the plotter and select **File > Cut Contour** to send data. You can preview the job and change cutter's parameter settings in 'Properties' tab of Cut Contour window. The Production Manager will be automatic activated to complete the job.


SignPal Expert - [Untitled 2]
File Edit View Arrange Text Effects Bitmap Window Help
DesignCentral
GCC AASII
0.000cm
Fill/Stroke Editor
No fill
Overprint
For Help, press F1

Select a Production Manager
On this computer (Local)
On another computer (Network)
On the internet address:
OK
Cancel


Cut Contour
SignPalJaguar IV-132@GCC JSB 000
Job
Status
Properties...
General
Options
Advanced
Malerial
52.000 x 1968
132.080cm
4998.720cm
Send now
Position
6.000cm
5.000cm
Size
5.026cm
4.604cm
100.000%
Fit to media
Copies
1
0.254cm
Contour Cut
Send
Done

[3] SignPal 10.5 Feature Lists

	Pro	Master	Expert	Apprentice
Text				
Text tool	•	•	•	•
Arc Text	•	•	•	
Path Text	•	•	•	
Vertical Text	•	•	•	•
Vertical Path Text	•	•	•	
Kerning	•	•	•	
Break apart/ Join	•	•	•	•
Load fonts on the fly	•	•	•	•
Drawing				
Bezier	•	•	•	•
Freehand drawing	•	•	•	•
Zoom to cursor	•	•	•	•

Shapes				
Rectangle	•	•	•	•
Oval	•	•	•	•
Polygon	•	•		
Starburst	•	•		
Fan	•			
Arrow	•			
Border tool	•	•		
Registration mark tool	•	•	•	•
Eyedropper	•			
Measure tool	•	•	•	•
Path Editing				
Select Point Tool	•	•	•	•
Remove point	•	•	•	
add point	•	•	•	
straighten path	•	•	•	
Round corner	•	•	•	
Sharpen Corner	•	•	•	
Optimize by Curve	•	•	•	
Optimize by smooth arc	•	•	•	
Optimize by 3point arc	•	•	•	
Make Arc	•	•	•	
Reduce Points	•	•	•	
Close path	•	•	•	
Change Start Point	•	•	•	
Cleaver	•	•	•	
Scissors	•	•	•	
Make right angle	•	•	•	
Break path	•	•	•	
Join paths	•	•	•	
Align horizontal	•	•	•	
Align vertical	•	•	•	
Align Paths	•	•	•	
Apply Length and Angle	•	•	•	

Remove tiny objects	•	•	•	
Working with Files				
Job Info	•	•	•	
Scanning	•	•	•	
Send email as jpg	•	•		
send email as pdf	•	•		
send email as native	•	•	•	•
Workspaces	•	•	•	•
View				
Design Editor	•	•		
Color mixer	•	•	•	•
Snap	•	•	•	•
Arrange				
Group	•	•	•	•
Compound	•	•	•	•
Mask	•	•	•	•
Lock	•	•		
Guides	•	•	•	•
Contour Cut	•	•	•	•
Dimension	•	•		
Convert to outlines	•	•	•	•
convert linked to native	•	•	•	•
Path direction	•	•	•	•
Order	•	•	•	•
Align	•	•	•	•
Distribute	•			
Step and Repeat	•	•	•	
Effects				
Combine	•	•	•	
Outline	•	•	•	
Contour Cut	•	•	•	•
Distort	•	•		
Shadow	•	•	•	

Color Trapping	•			
Smooth shadow	•	•	•	
Bitmap				
Marquee	•	•		
Move	•	•		
Eraser	•	•		
Pencil	•	•		
Fill	•	•		
Crop	•	•		
Autotrace	•	•		
Color Trace	•			
Change Color Mode	•			
Production				
Cut/Plot	•	•	•	•
Manual Split Lines	•	•	•	•
Tile all copies	•	•	•	•
Panel to border	•	•	•	•
Autoweld	•	•	•	•
Auto trap	•	•	•	•
Overcut	•	•	•	•
Optimize cutting order	•	•	•	•

GreatCut Instruction

The user manual of GreatCut 2 software is available on the GCC installation CD.

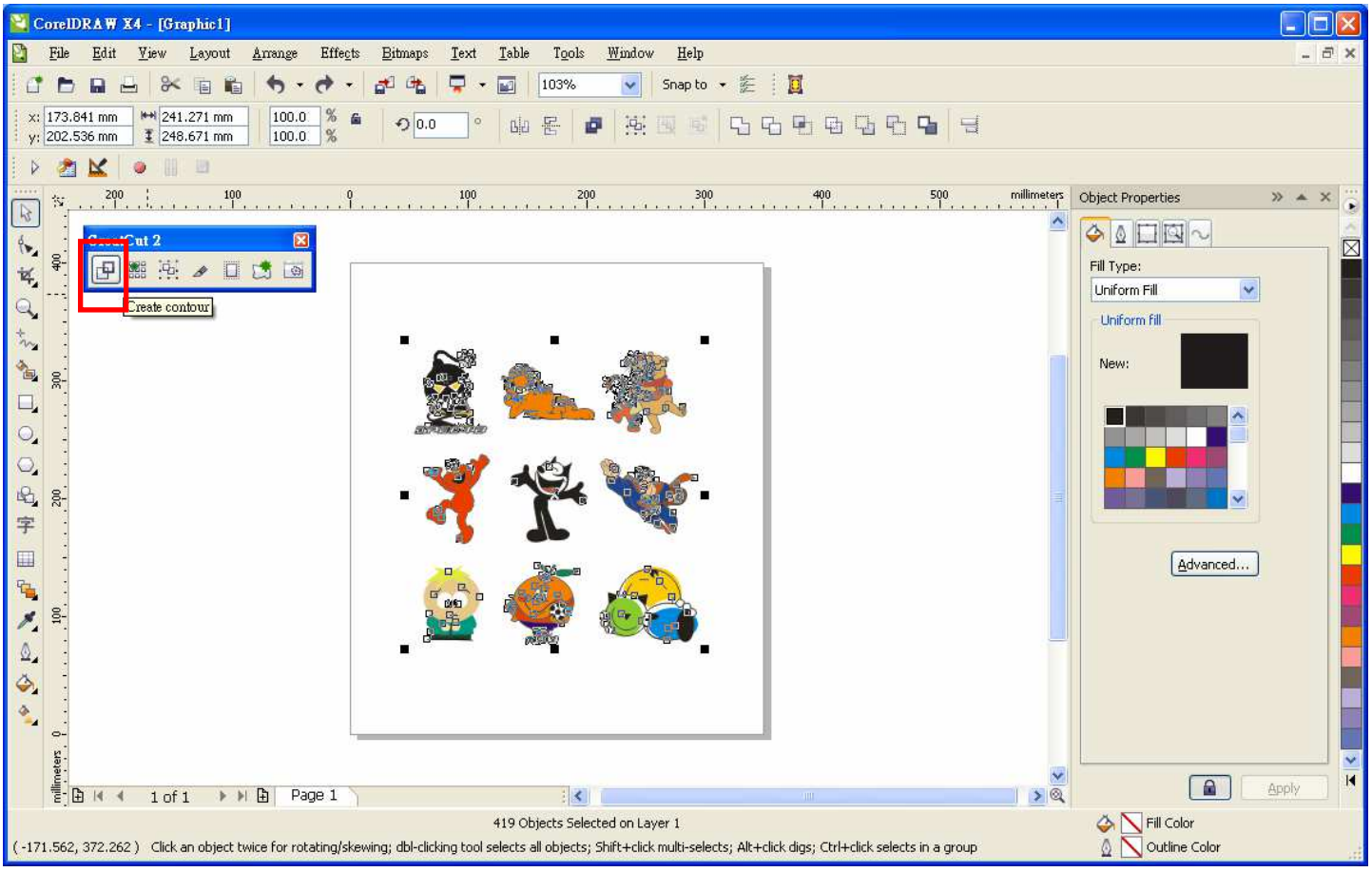
GCC AASII System

Below is a step-by-step instruction of using the AAS function of GreatCut 2 software through CorelDRAW and Adobe Illustrator.

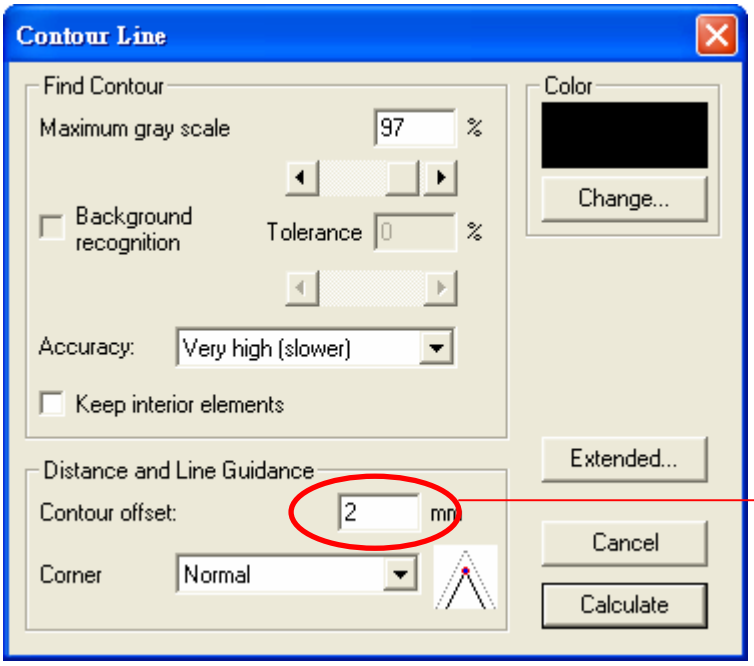
Edit your image in CorelDRAW

4-Point Positioning

Step 1. Create a new file in CorelDRAW and click on the Create contour icon in the GreatCut 2 toolbar (it would appear automatically once CorelDRAW is open).

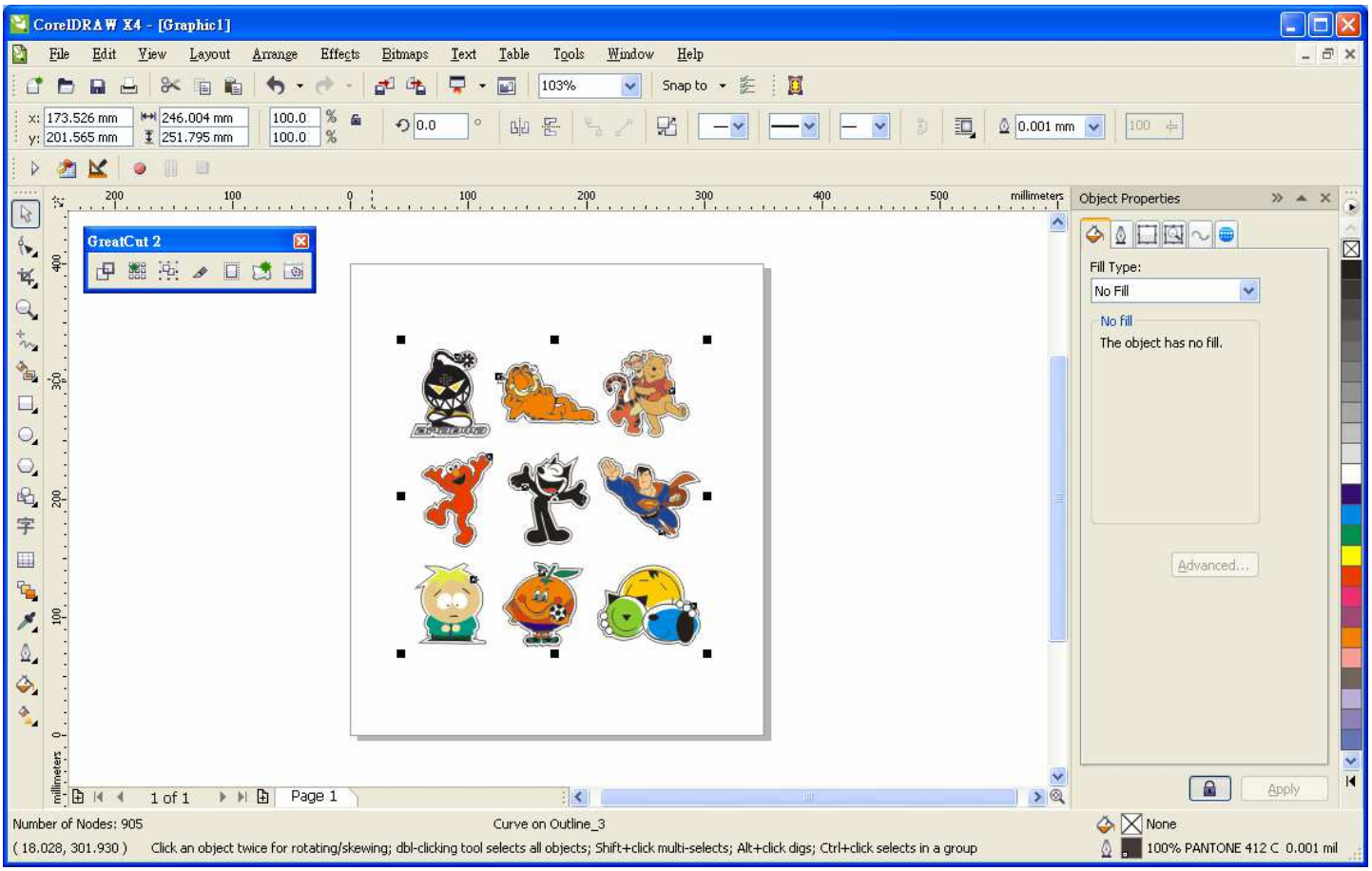

CorelDRAW X4 - [Graphic1]
File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
Snap to
GreatCut 2
Create contour
Object Properties
Fill Type:
Uniform Fill
Uniform fill
New:
Advanced...
Apply
1 of 1
Page 1
419 Objects Selected on Layer 1
(-171.562, 372.262) Click an object twice for rotating/skewing; dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs; Ctrl+click selects in a group
Fill Color
Outline Color

Step 2. Complete contour line settings (including contour offset value) and press Calculate to confirm.

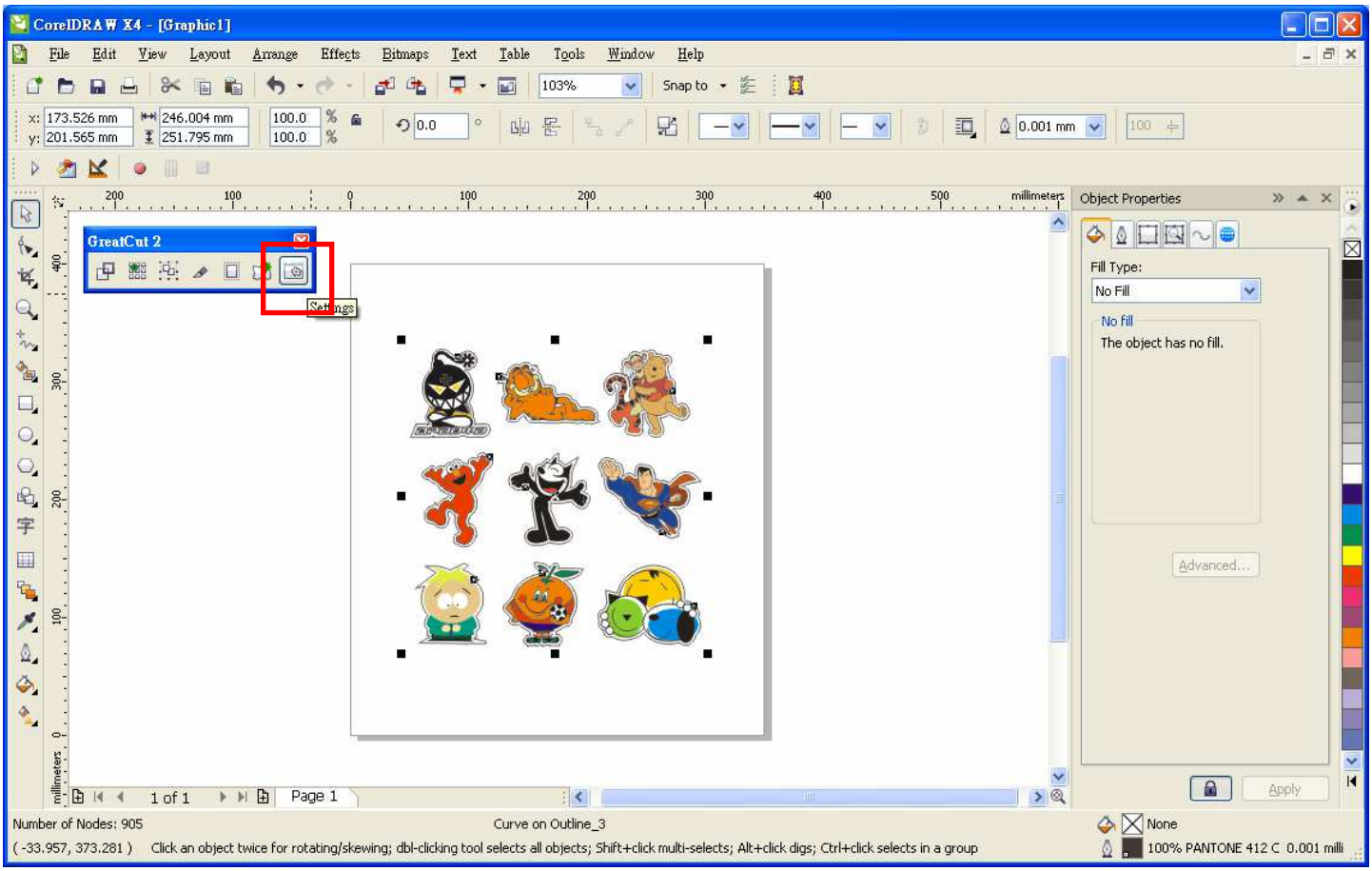


Contour offset is the distance between the object and the contour line.

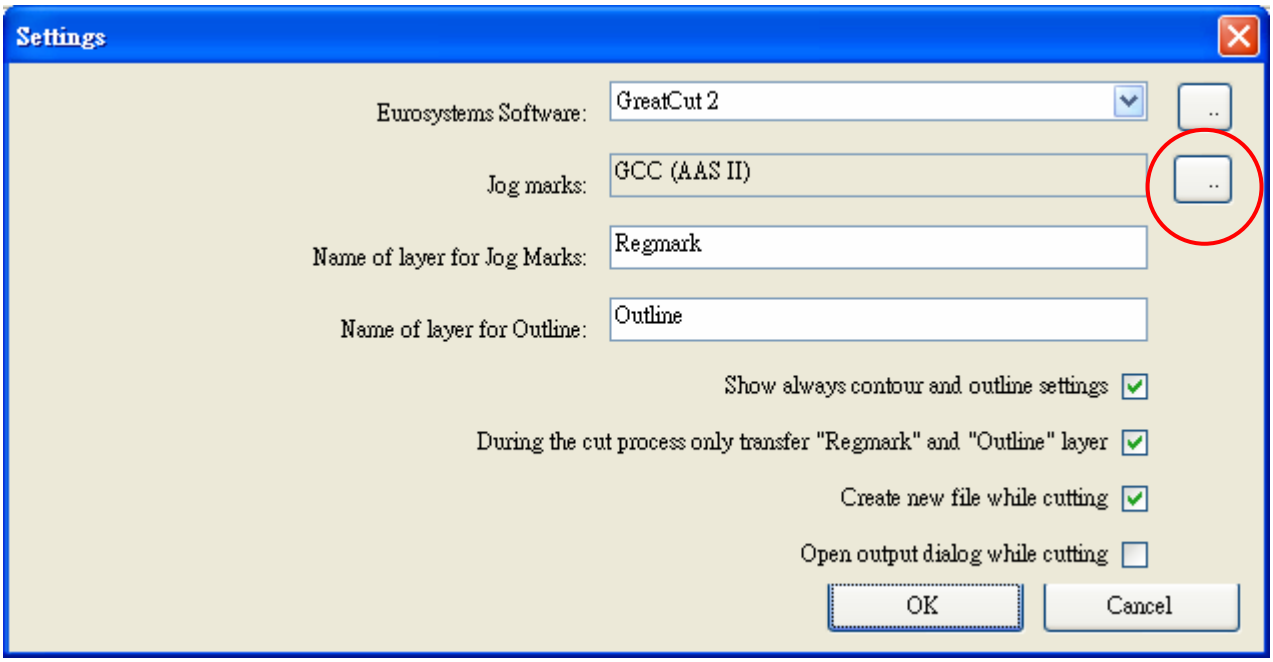
Contour lines will be added to the images.


CorelDRAW X4 - [Graphic1]
File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
GreatCut 2
Object Properties
Fill Type:
No Fill
The object has no fill.
Advanced...
Apply
Page 1
Number of Nodes: 905
Curve on Outline_3
Click an object twice for rotating/skewing; dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs; Ctrl+click selects in a group

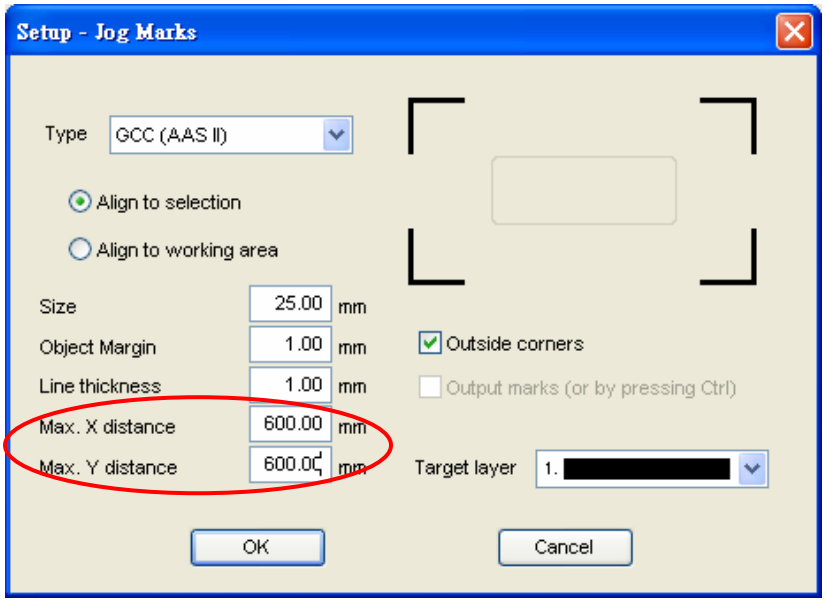
Step 3. Press the Settings icon on the GreatCut 2 toolbar.


CorelDRAW X4 - [Graphic1]
File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
GreatCut 2
Settings
Object Properties
Fill Type:
No Fill
No fill
The object has no fill.
Advanced...
Apply
1 of 1
Page 1
Number of Nodes: 905
Curve on Outline_3
(-33.957, 373.281)
Click an object twice for rotating/skewing; dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs; Ctrl+click selects in a group
None
100% PANTONE 412 C 0.001 milli

Step 4. Press the button on the right of Jog marks.



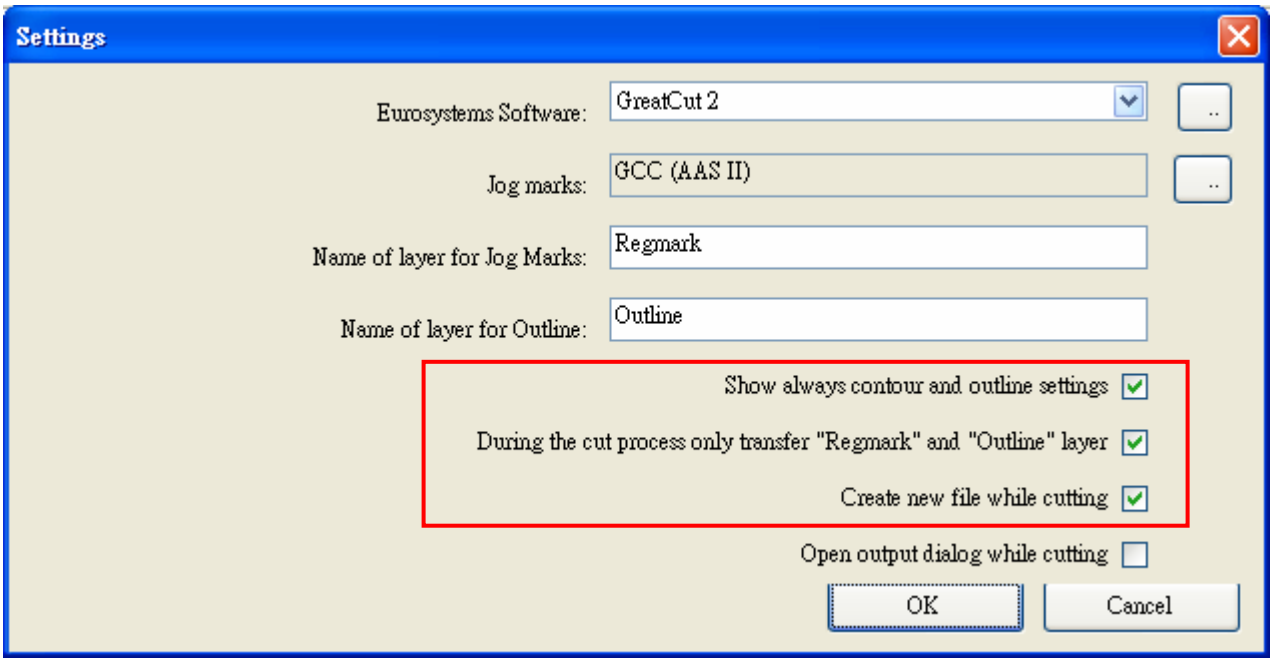
Step 5. Adjust the size, object margin and line thickness of your registration marks in the Setup-Jog Marks window and click OK.



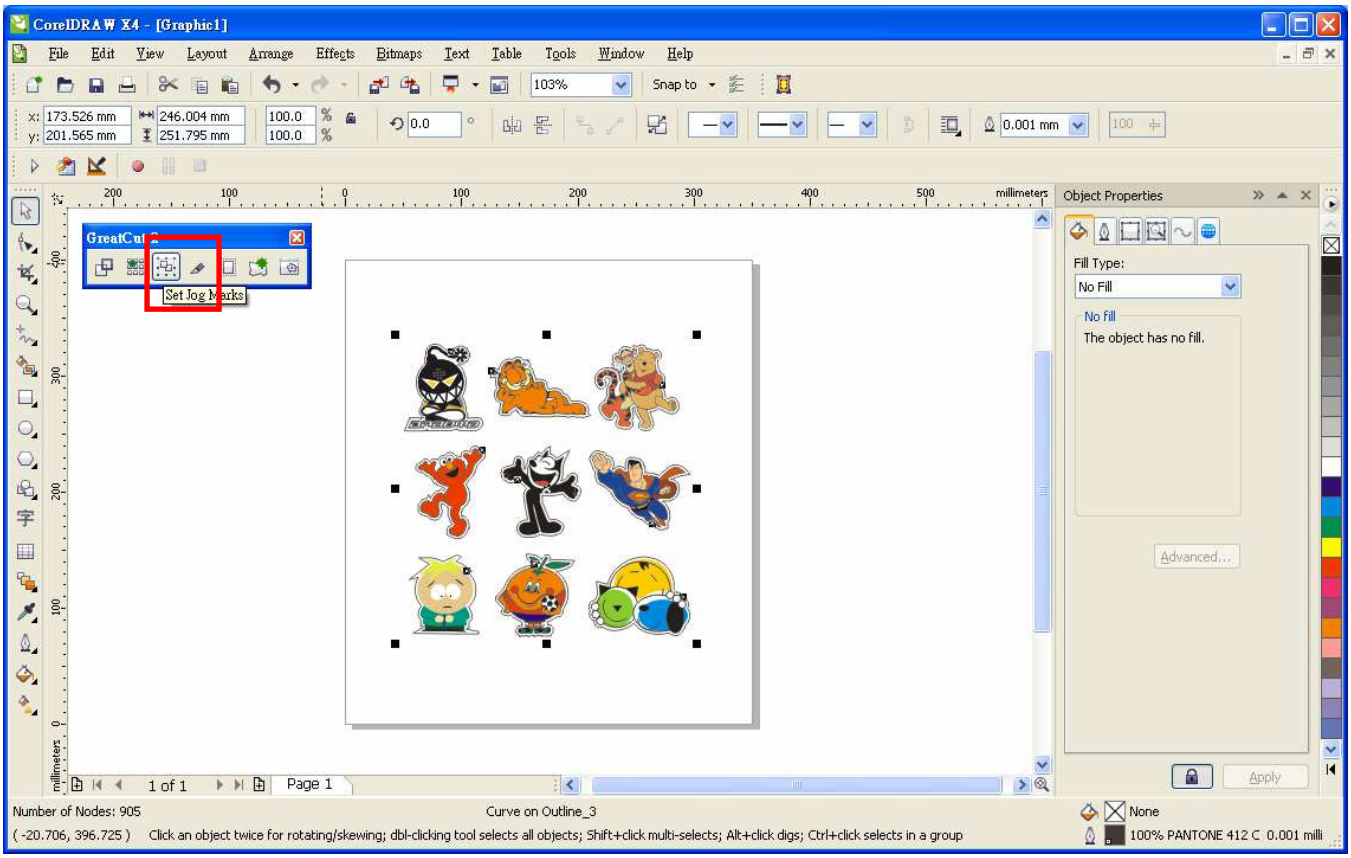
4-Point Positioning

- Size: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Object margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm
- Line thickness: the line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm

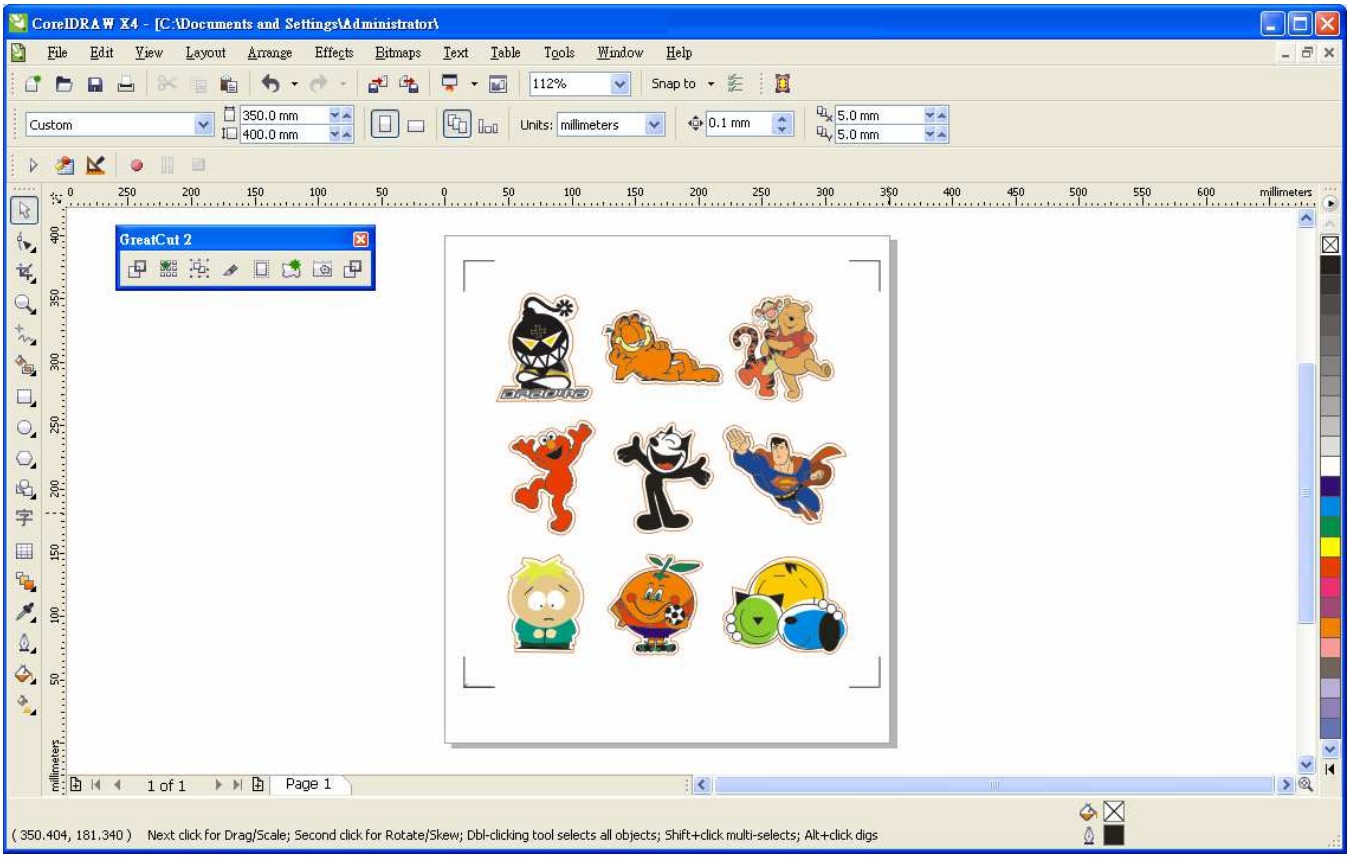
Step 6. Ensure the three items below are selected and click OK.



Step 7. Click the Set Jog Marks Icon in the GreatCut 2 toolbar.

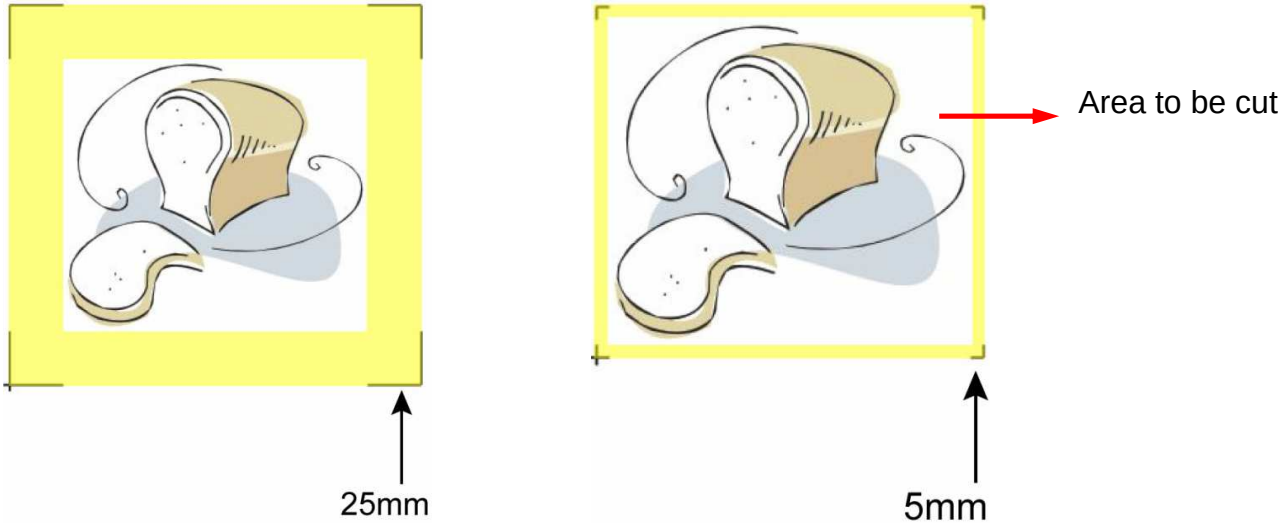

CorelDRAW X4 - [Graphic1]
Set Jog Marks
Object Properties
Fill Type:
No Fill
The object has no fill.
Advanced...
Apply
Page 1
Number of Nodes: 905
Curve on Outline_3
Click an object twice for rotating/skewing; dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs; Ctrl+click selects in a group

The system will create the 4 marks as shown in the picture below.


CorelDRAW X4 - [C:\Documents and Settings\Administrator\
GreatCut 2
Page 1
(350.404, 181.340)
Next click for Drag/Scale; Second click for Rotate/Skew; Dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs

Note:

1. To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (5mm minimum) when you apply the above function(see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



Page size (unit: mm)	Suggested mark length (unit: mm)
A6 (105 x 148)	5
A5 (148 × 210)	8
A4 (210 × 297)	11
A3 (297 × 420)	16
A2 (420 × 594)	23
A1 (594 × 841) and above	25*

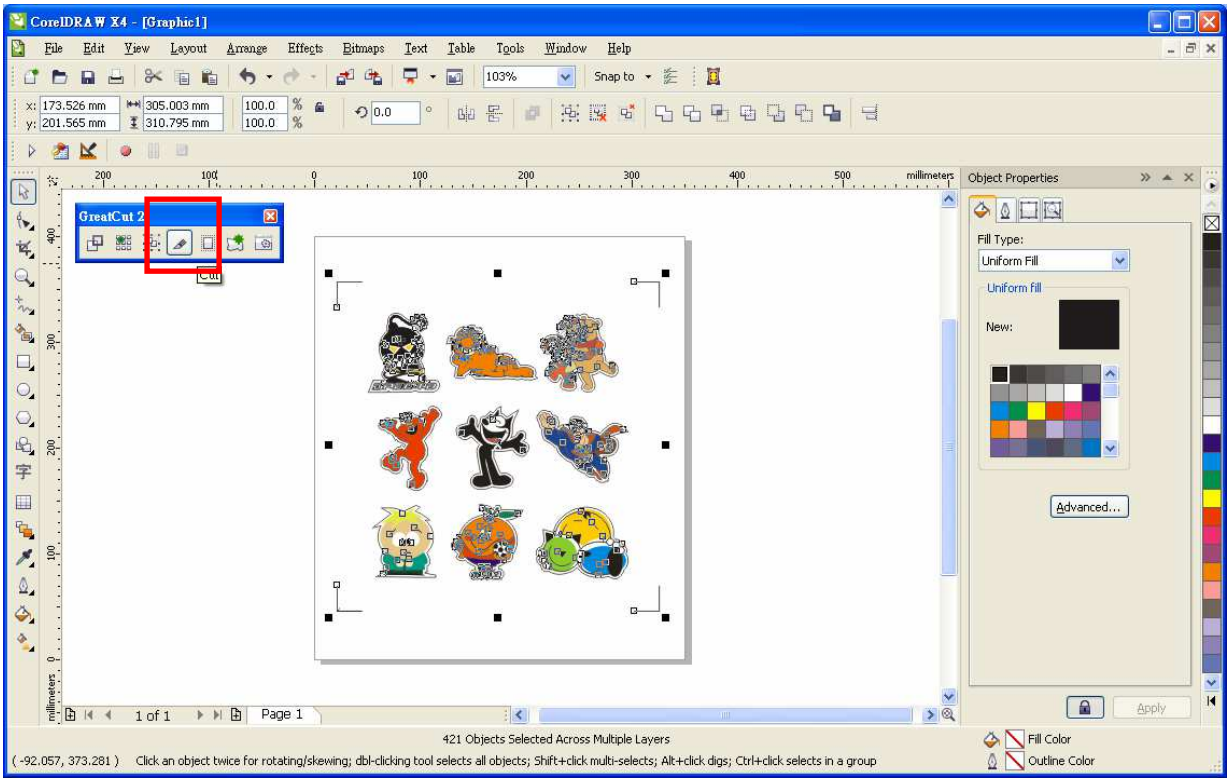
Table 1

*25mm is the suggested value for the registration mark length

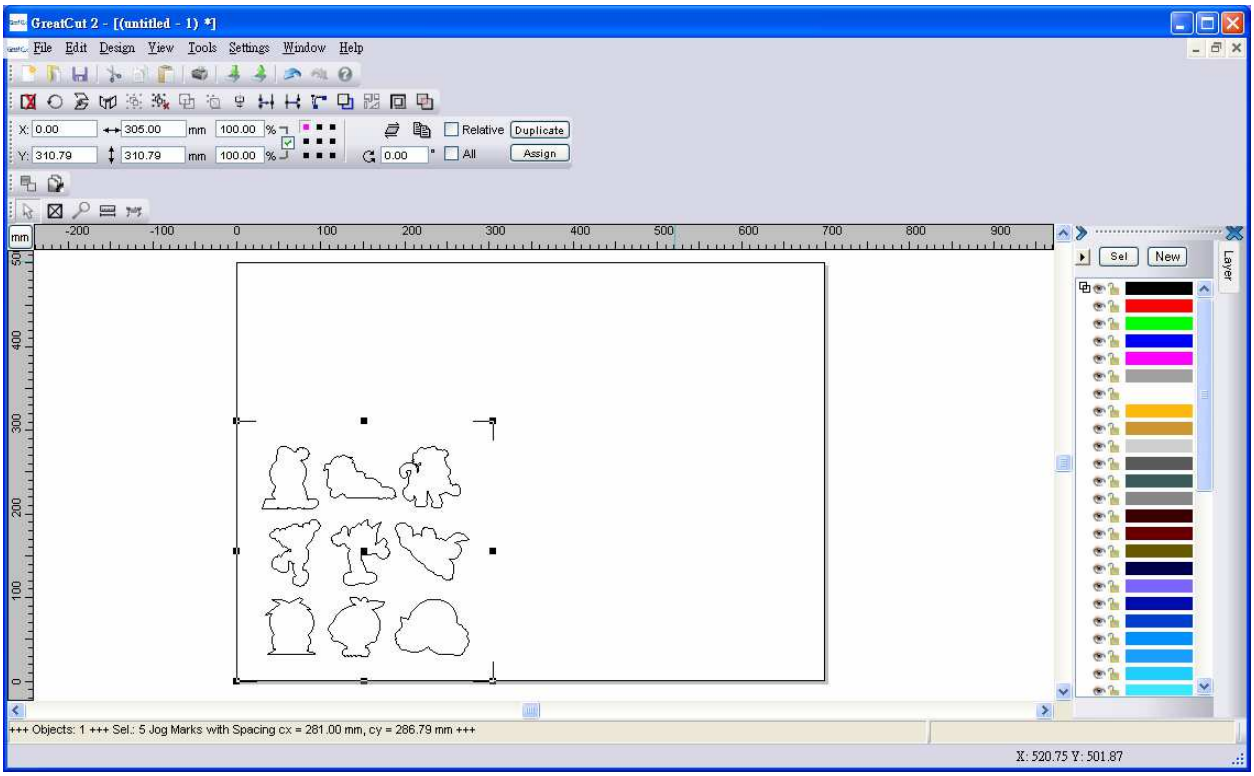
2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

Output

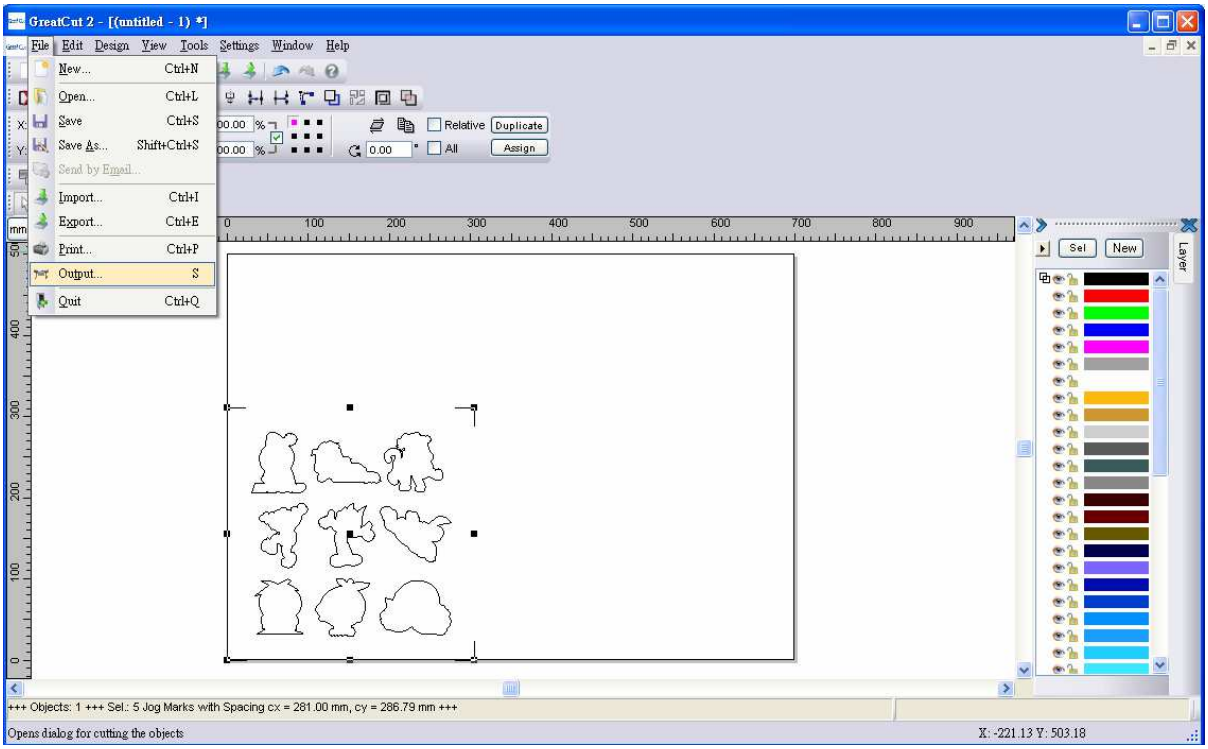
Step 1. Select both the entire object (including registration marks and the contour line) and press the Cut icon in the GreatCut 2 toolbar.



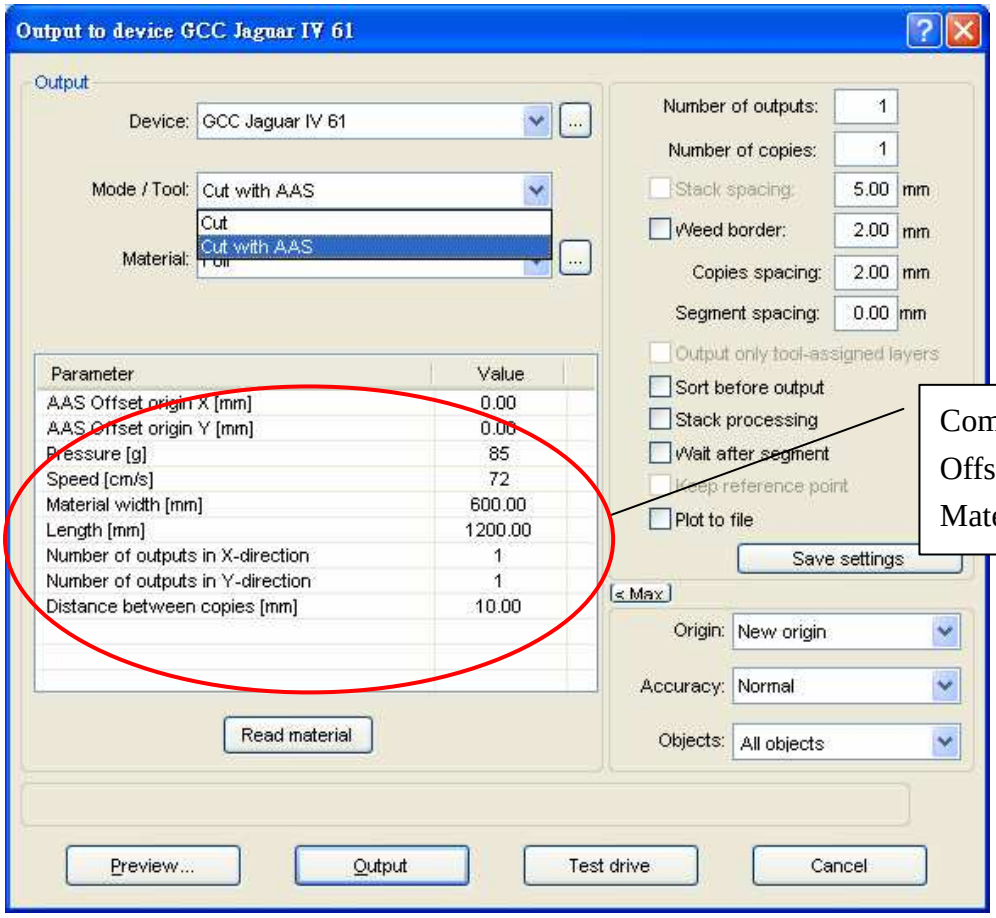
Step 2. The system will activate GreatCut2 automatically and import the registration marks and contour line to GreatCut 2.



Step 3. Select Output under File.

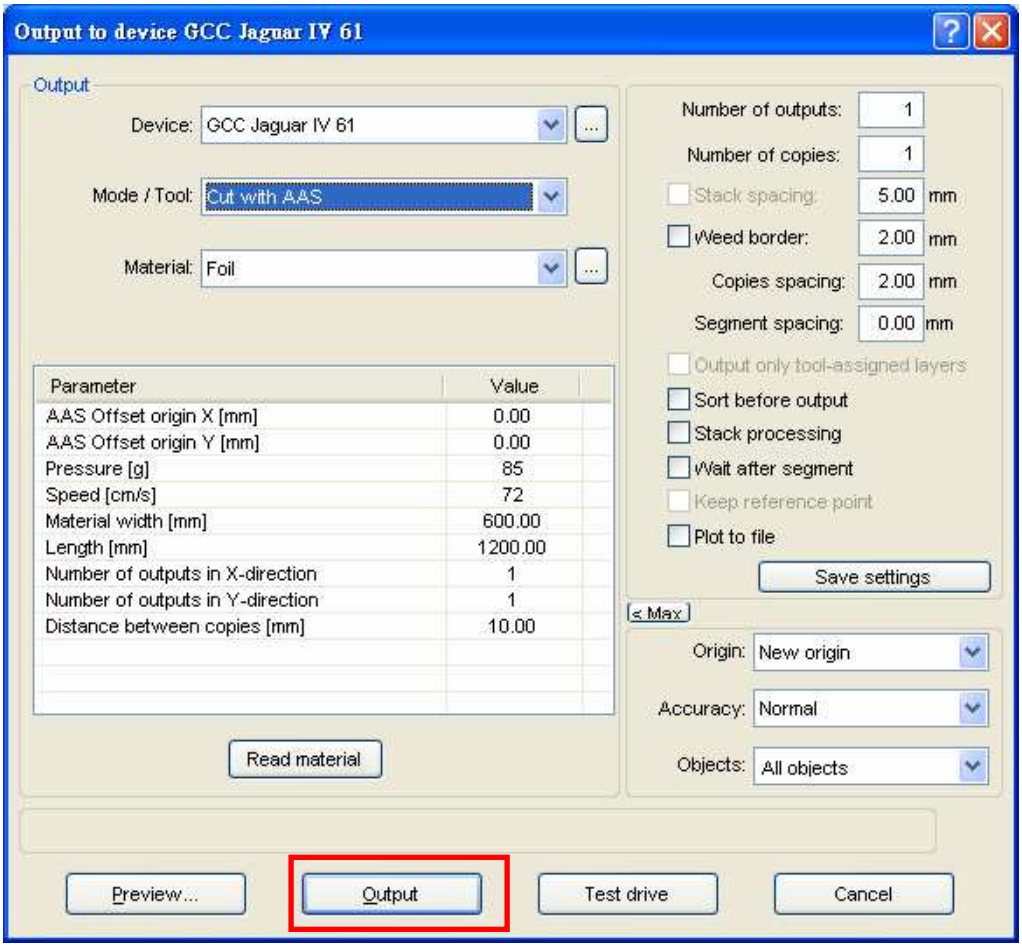


Step 4. Select Cut with AAS in Mode/Tool in the Output to device window.



Complete the settings of AAS Offset, Pressure, Speed, Material width and so forth.

Step 5. Click output and the object will be sent to GCC Cutting Plotter

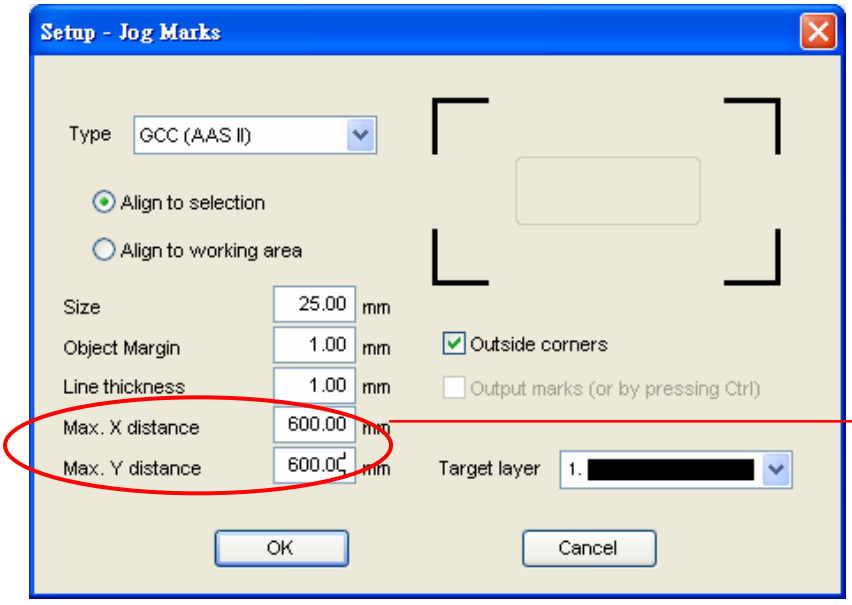


Advanced Settings

Segmental Positioning

For precise cutting quality, it is suggested to apply “Segmental Positioning” by adjusting the x and y distance when you are working on an extra long or large-size image to increase cutting quality.

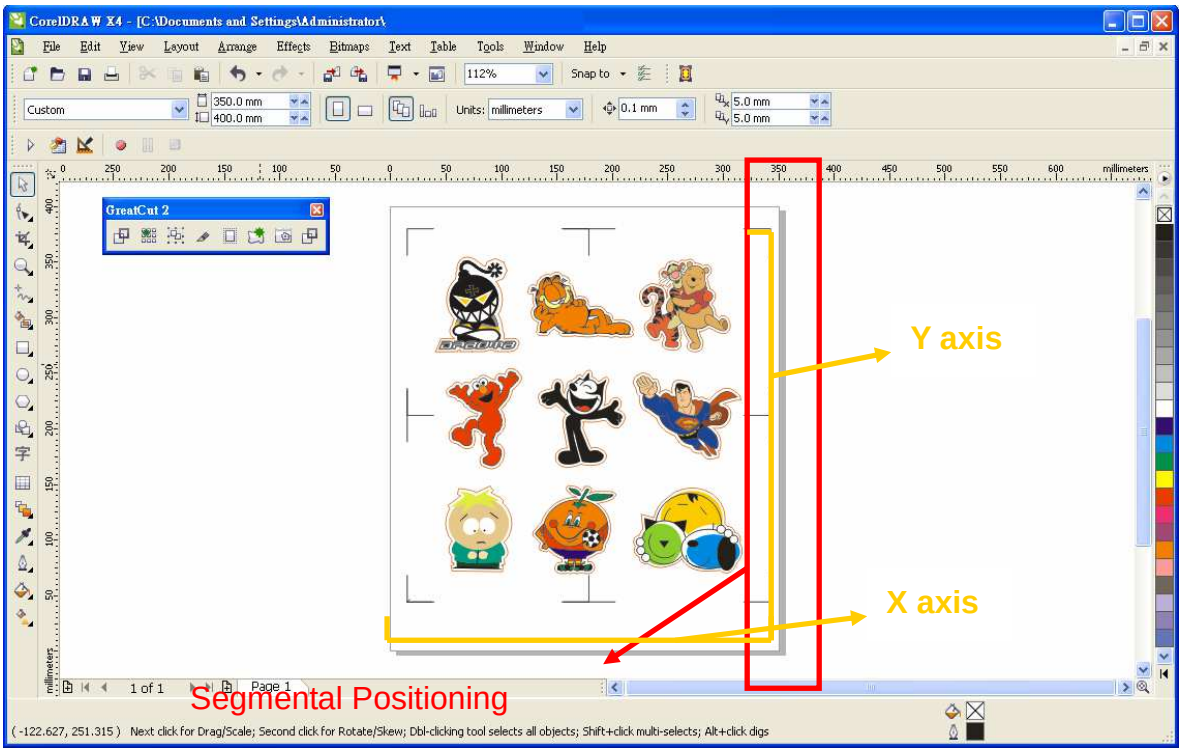
Follow the same steps in the **4-Point Positioning** section to complete the contour line setting and registration mark creation procedures. Adjust the size, object margin and line thickness of your registration marks and the space between registration marks by changing X, Y distance in the Setup-Jog Marks window and click OK.



Segmental Positioning

- Max. x Distance: The distance of intermediate position on the X axis
  → Range: 200-500 mm
- Max. y Distance: The distance of intermediate position on the Y axis
  → Range: 200-500 mm

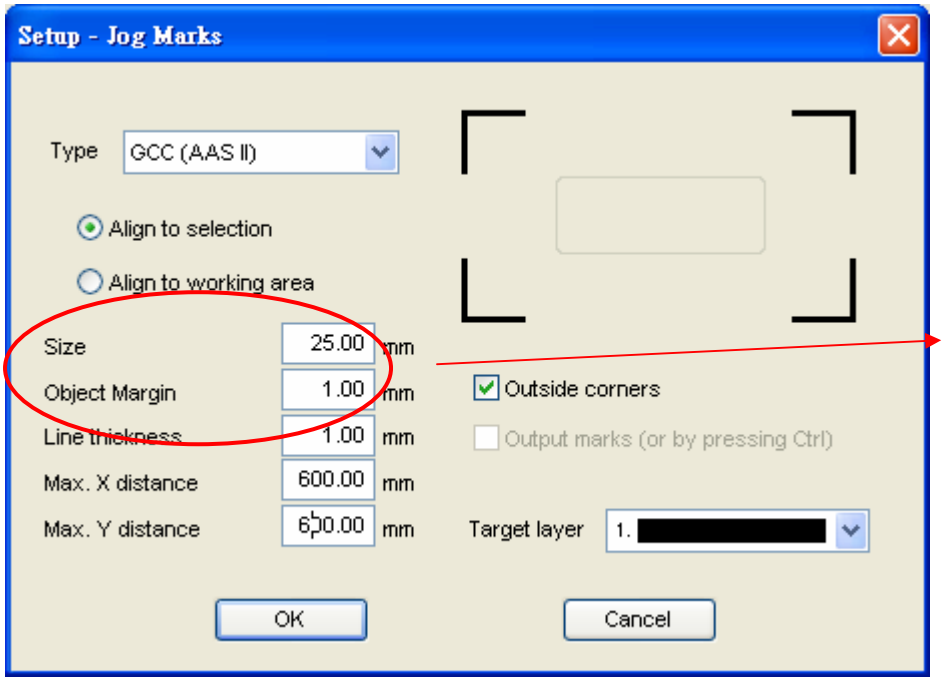
The system will create the marks as shown in the picture below.



Follow the same steps in the **Output** section to output your image to GCC Cutting Plotter.

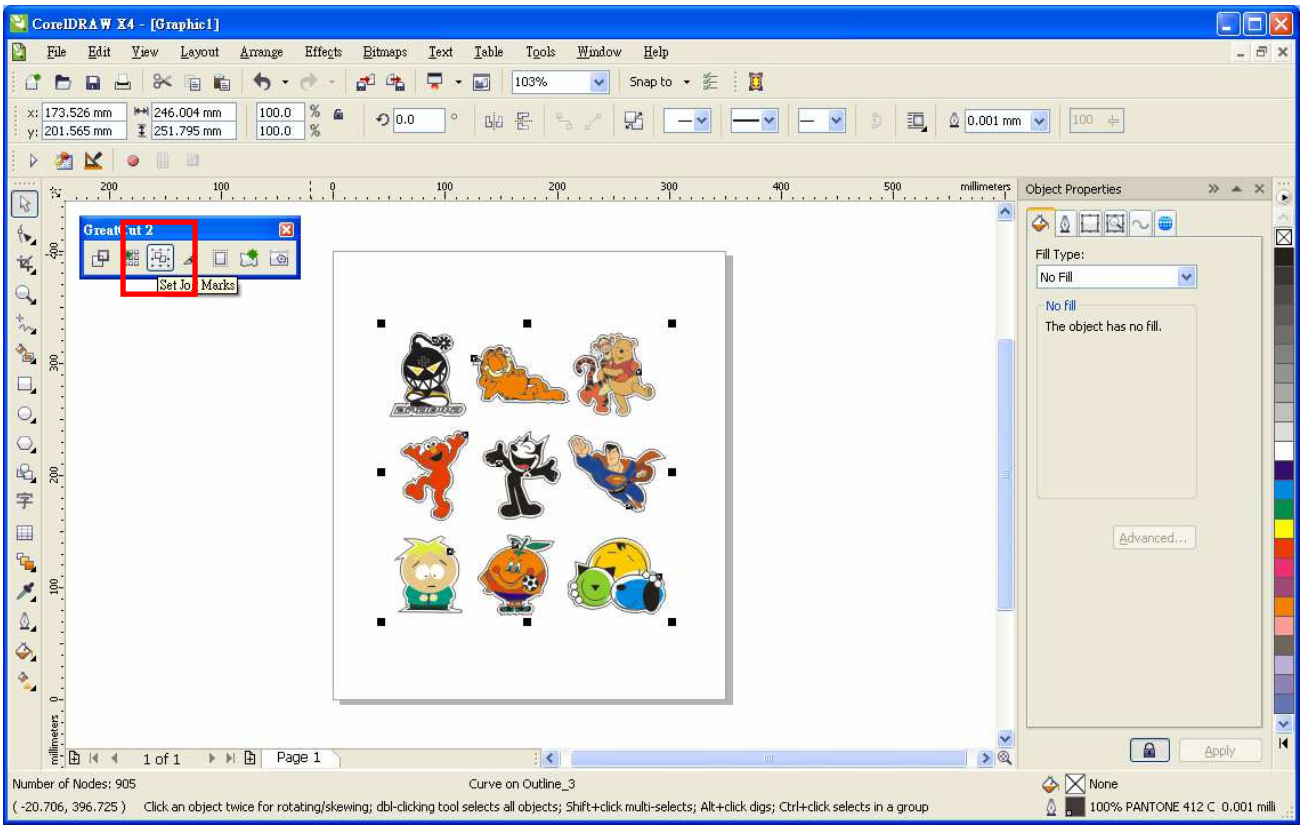
Multiple Copies

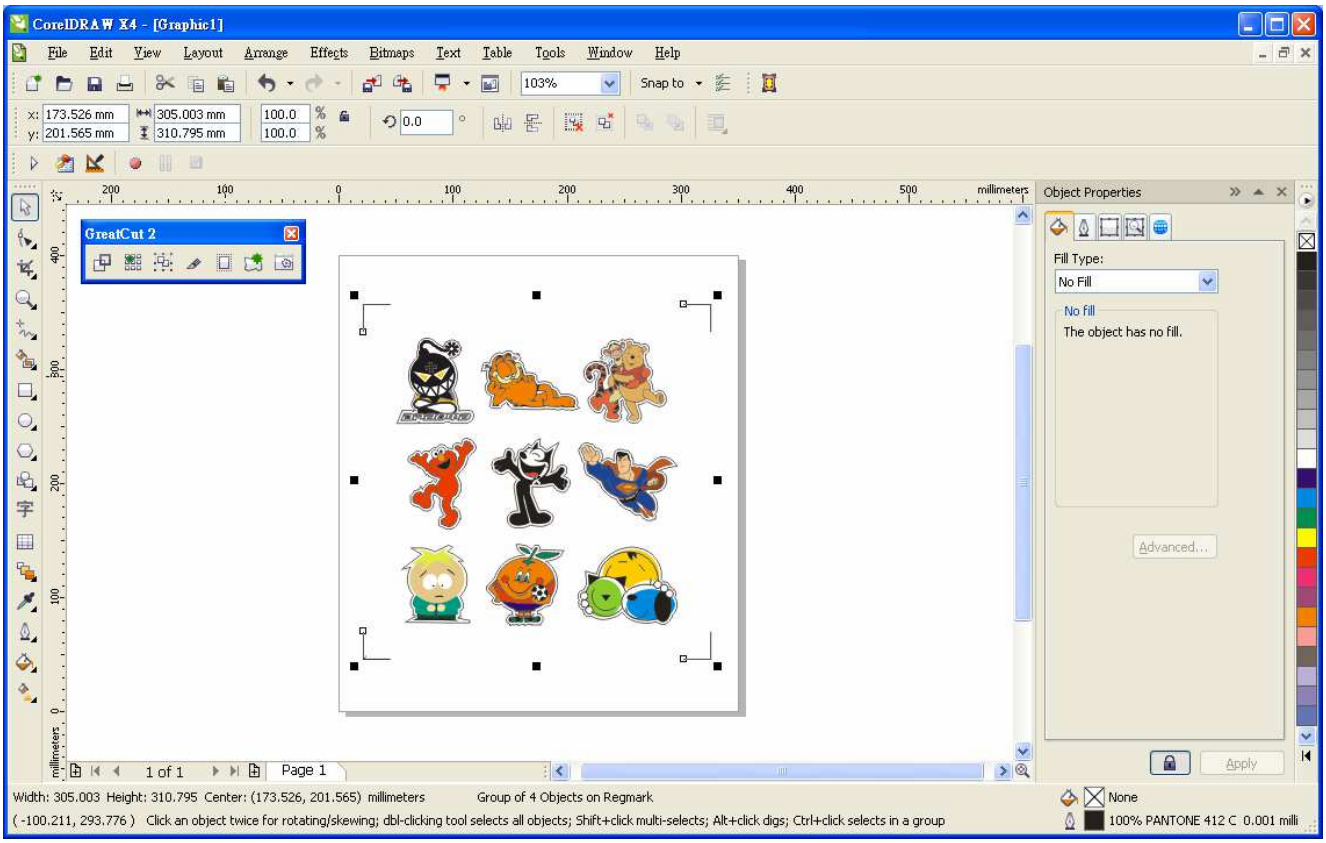
Follow the same steps in the **4-Point Positioning** section to complete the contour line setting and registration mark creation procedures.



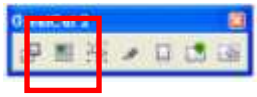
When you apply the “Multiple Copies” function, the value that has been set in this section will still be applied.

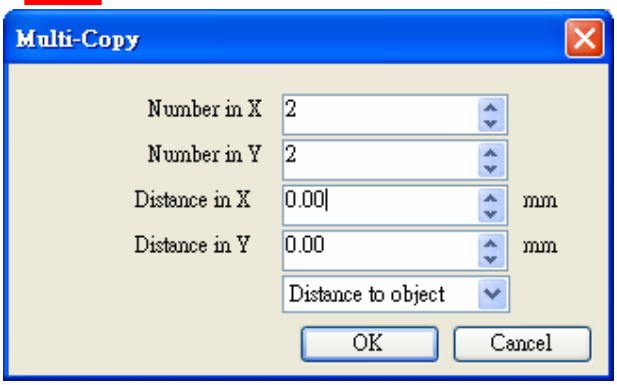
Click the Set Jog Marks Icon in the GreatCut 2 toolbar and 4 marks will be created as shown in the picture below.


CorelDRAW X4 - [Graphic1]
File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
Object Properties
Fill Type:
No Fill
The object has no fill.
Advanced...
Apply
Page 1
Number of Nodes: 905
Curve on Outline_3
Click an object twice for rotating/skewing; dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs; Ctrl+click selects in a group


CorelDRAW X4 - [Graphic1]
File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
GreatCut 2
Object Properties
Fill Type:
No Fill
No fill
The object has no fill.
Advanced...
Apply
1 of 1
Page 1
Width: 305.003 Height: 310.795 Center: (173.526, 201.565) millimeters
Group of 4 Objects on Regmark
Click an object twice for rotating/skewing; dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs; Ctrl+click selects in a group
None
100% PANTONE 412 C 0.001 milli

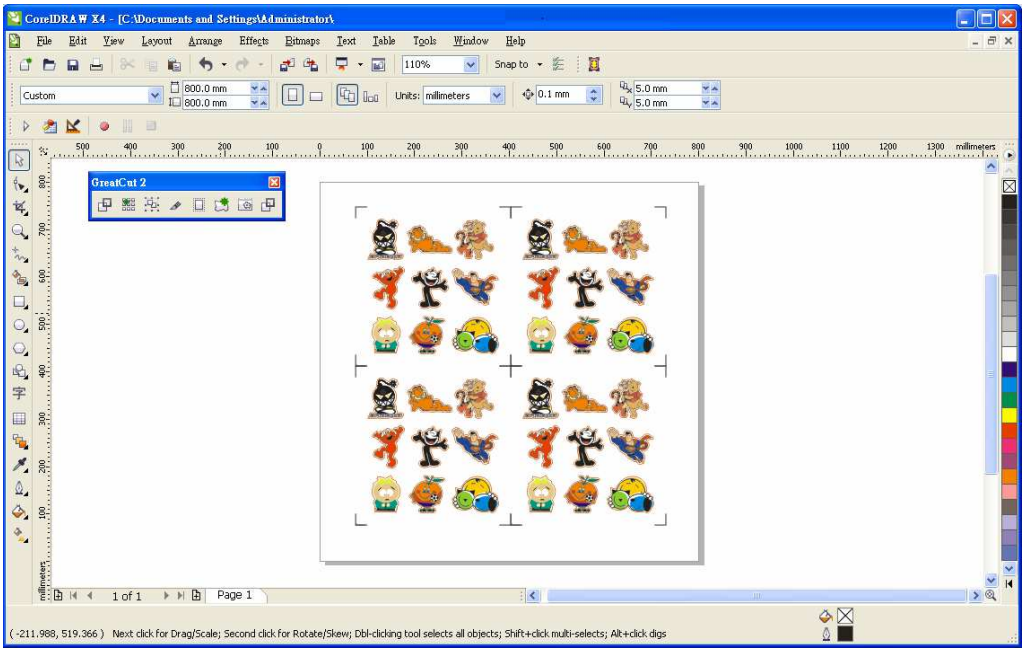
Click the Multi-copy Icon in the GreatCut 2 toolbar and complete the Number in X/Y (the number of copies desired on the X/Y axis) and Distance in X/Y (distance between each copy) settings then click OK.





Note: The spacing of vertical & horizontal (Offset X & Y) should be ≥ 20mm or = 0mm; Users are advised to set the Distance in X/Y as 0 mm to remove the space between each copy to avoid the waste of materials.

The system will create several copies of the object with registration marks as shown in the picture below.

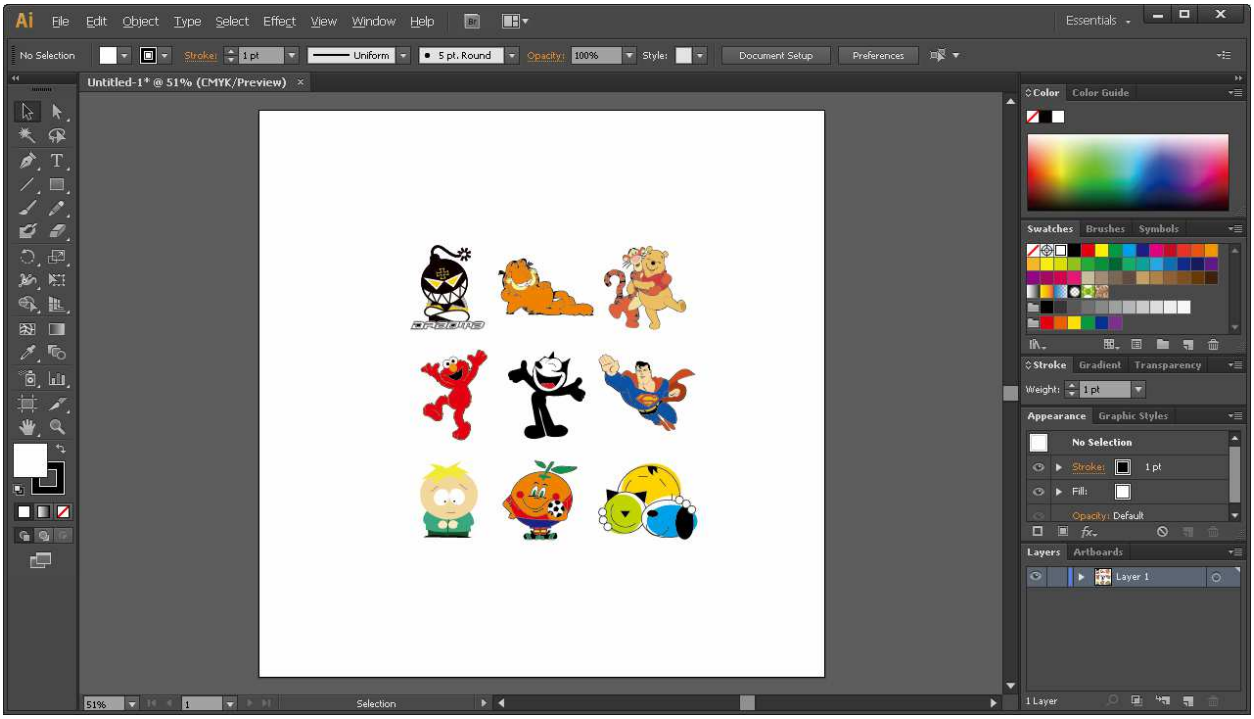

CorelDRAW X4 - [C:\Documents and Settings\Administrator\
File Edit View Layout Arrange Effects Bitmaps Text Table Tools Window Help
GreatCut 2
1 of 1
Page 1
(-211.988, 519.366) Next click for Drag/Scale; Second click for Rotate/Skew; Dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs

Follow the same steps in the **Output** section to output your image to GCC Cutting Plotter.

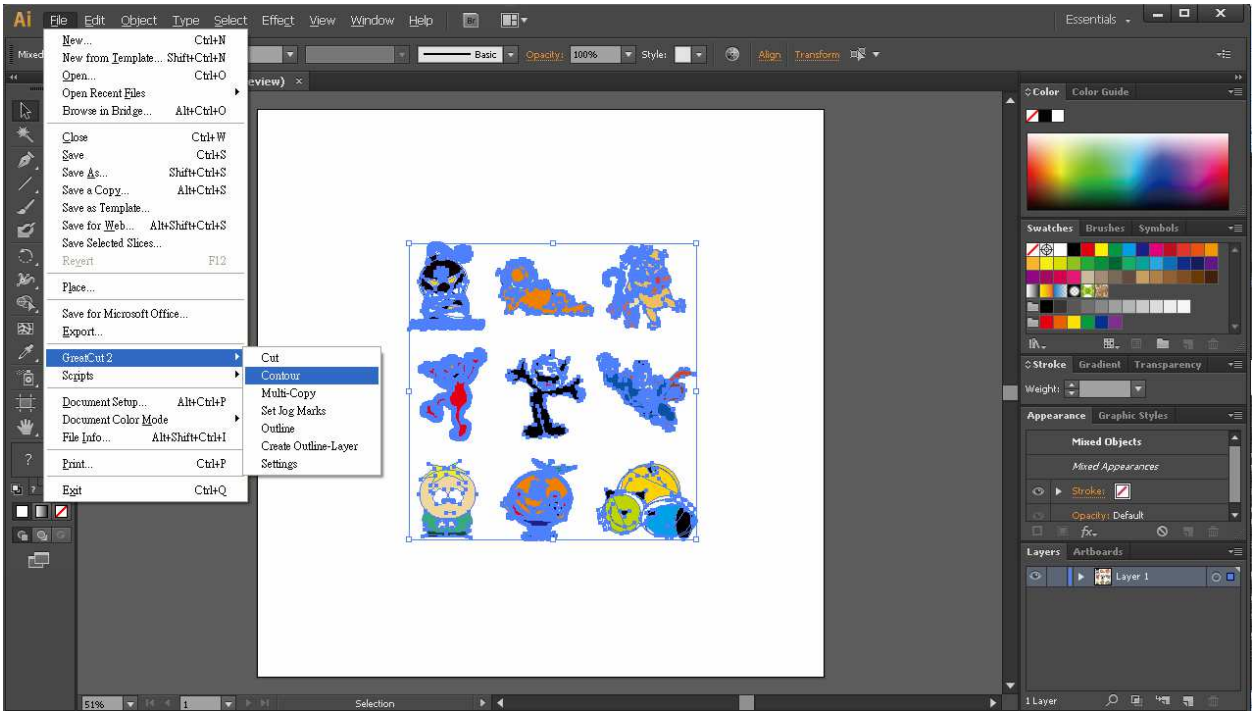
Edit your image in Adobe Illustrator

4-Point Positioning

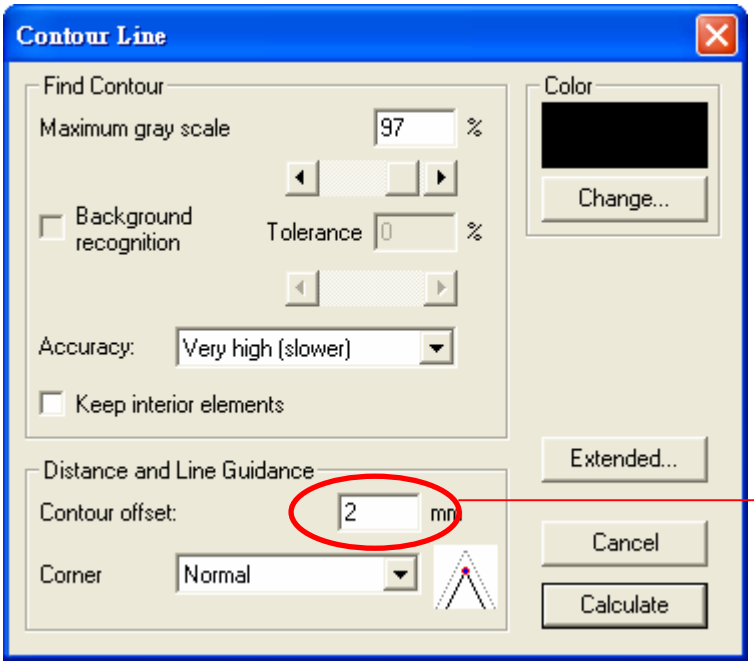
Step 1. Create a new file in Adobe Illustrator.



Step 2. Select the image and go to Contour in GreatCu2 in File.

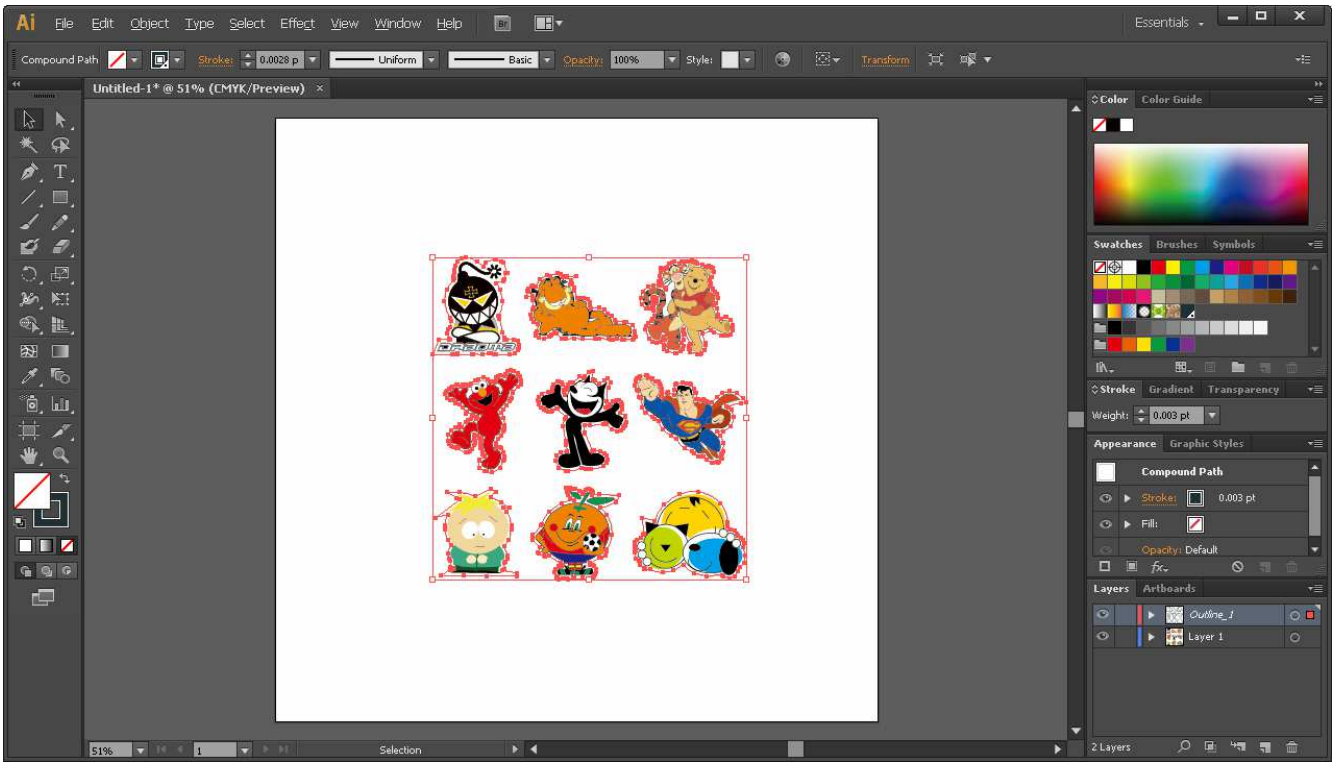


Step 3. Complete contour line settings (including contour offset value) and press Calculate to confirm.

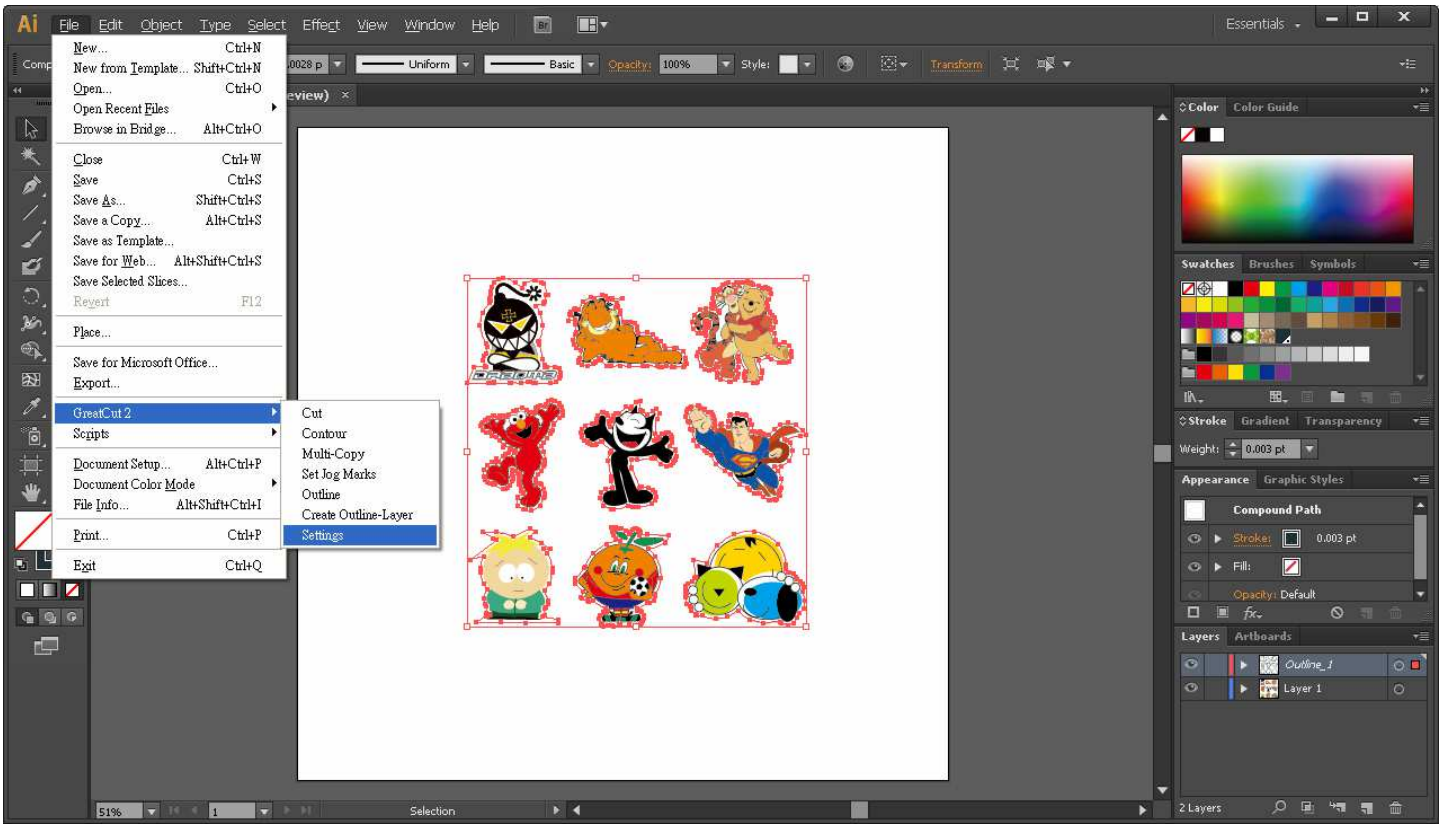


Contour offset is the distance between the object and the contour line.

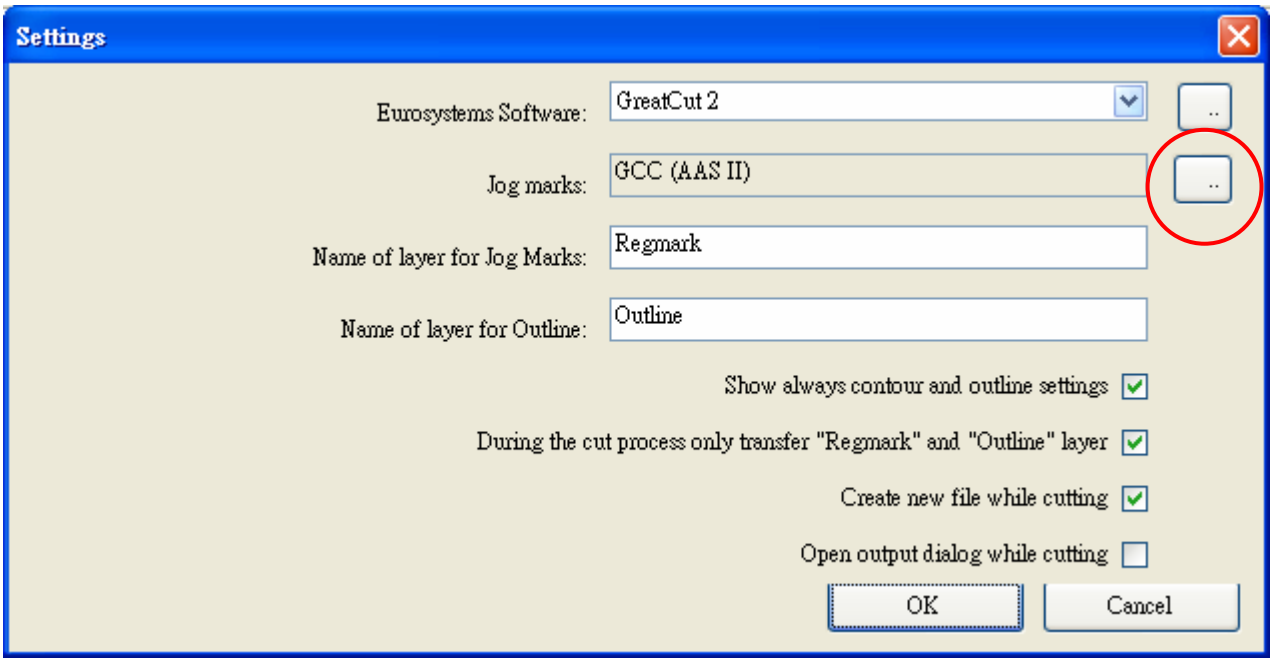
Contour line is now added to the object.



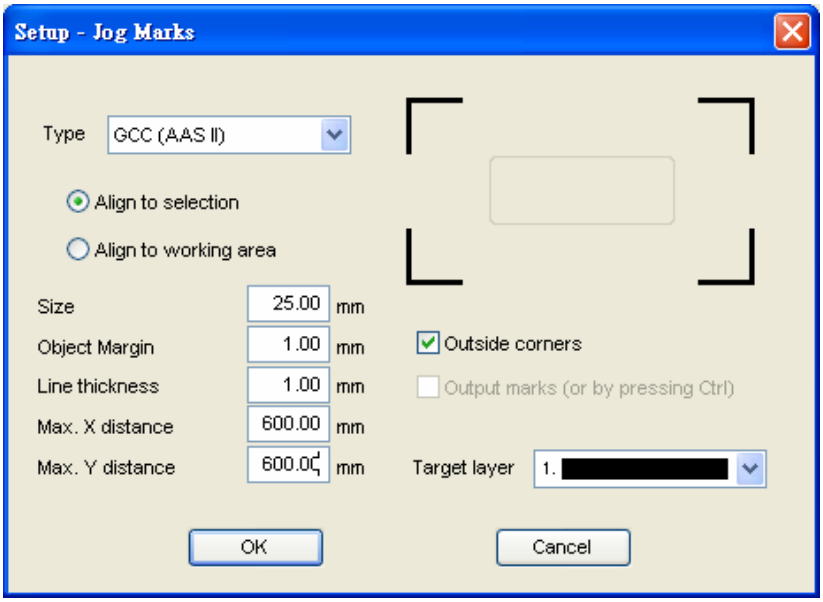
Step 4. Click Settings in GreatCut 2 under File.



Step 5. Press the button on the right of Jog marks.



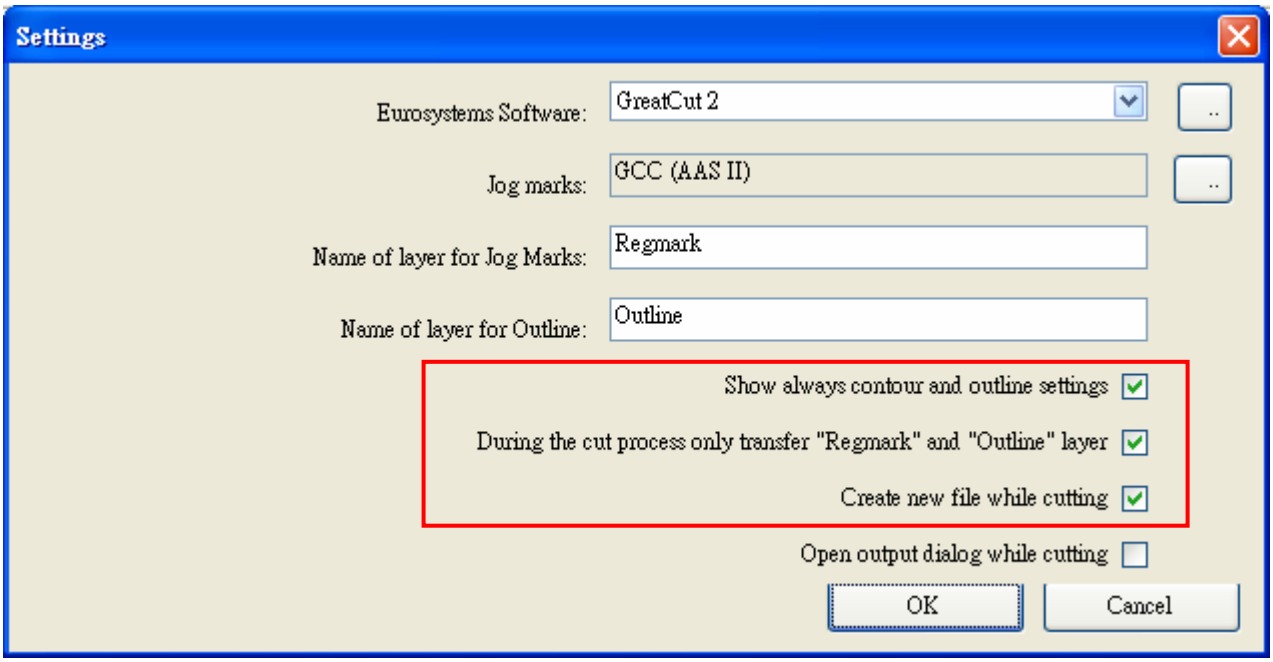
Step 6. Adjust the size, object margin and line thickness of your registration marks and click OK.



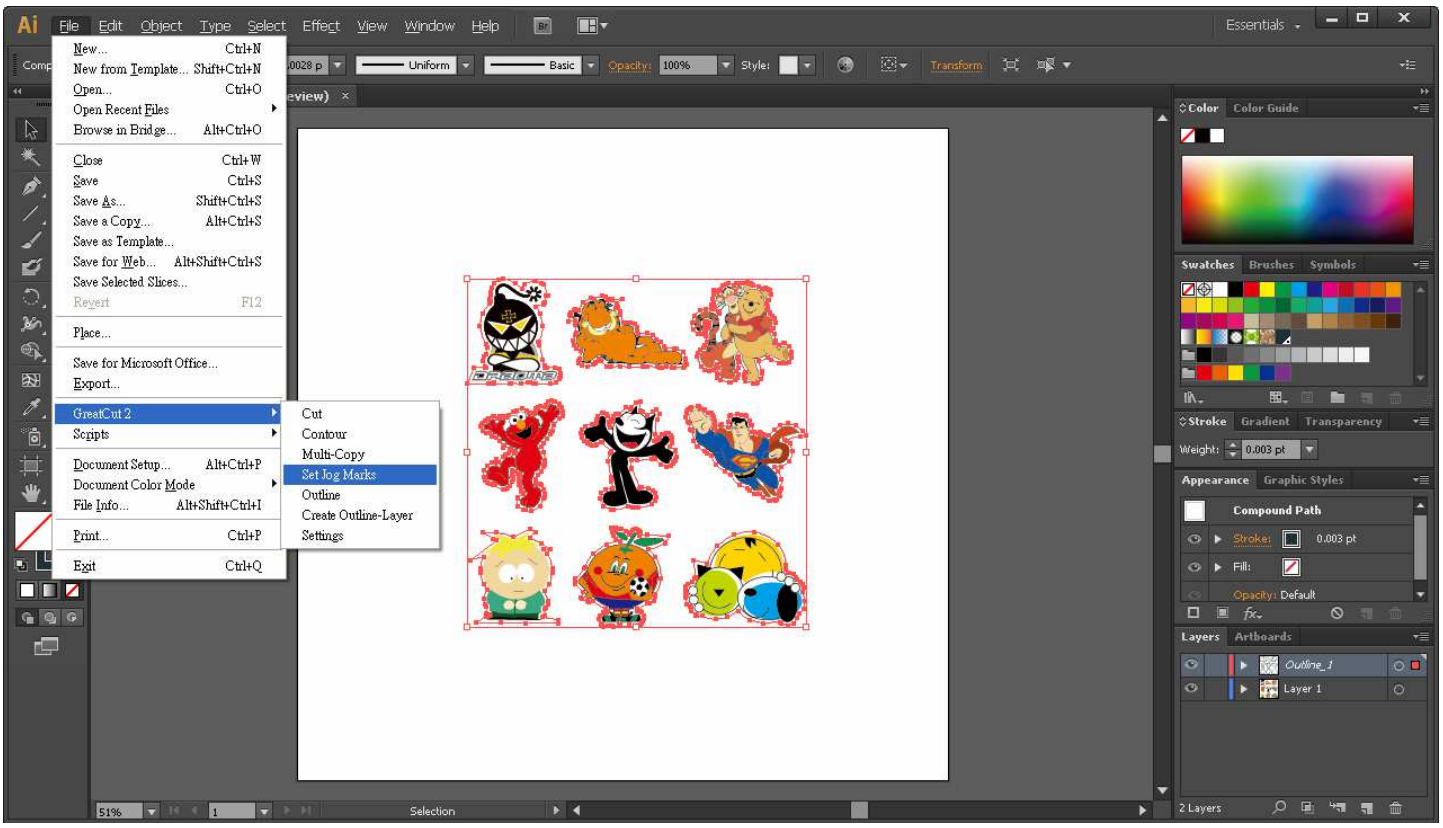
4-Point Positioning

- Size: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Object margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm
- Line thickness: the line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm

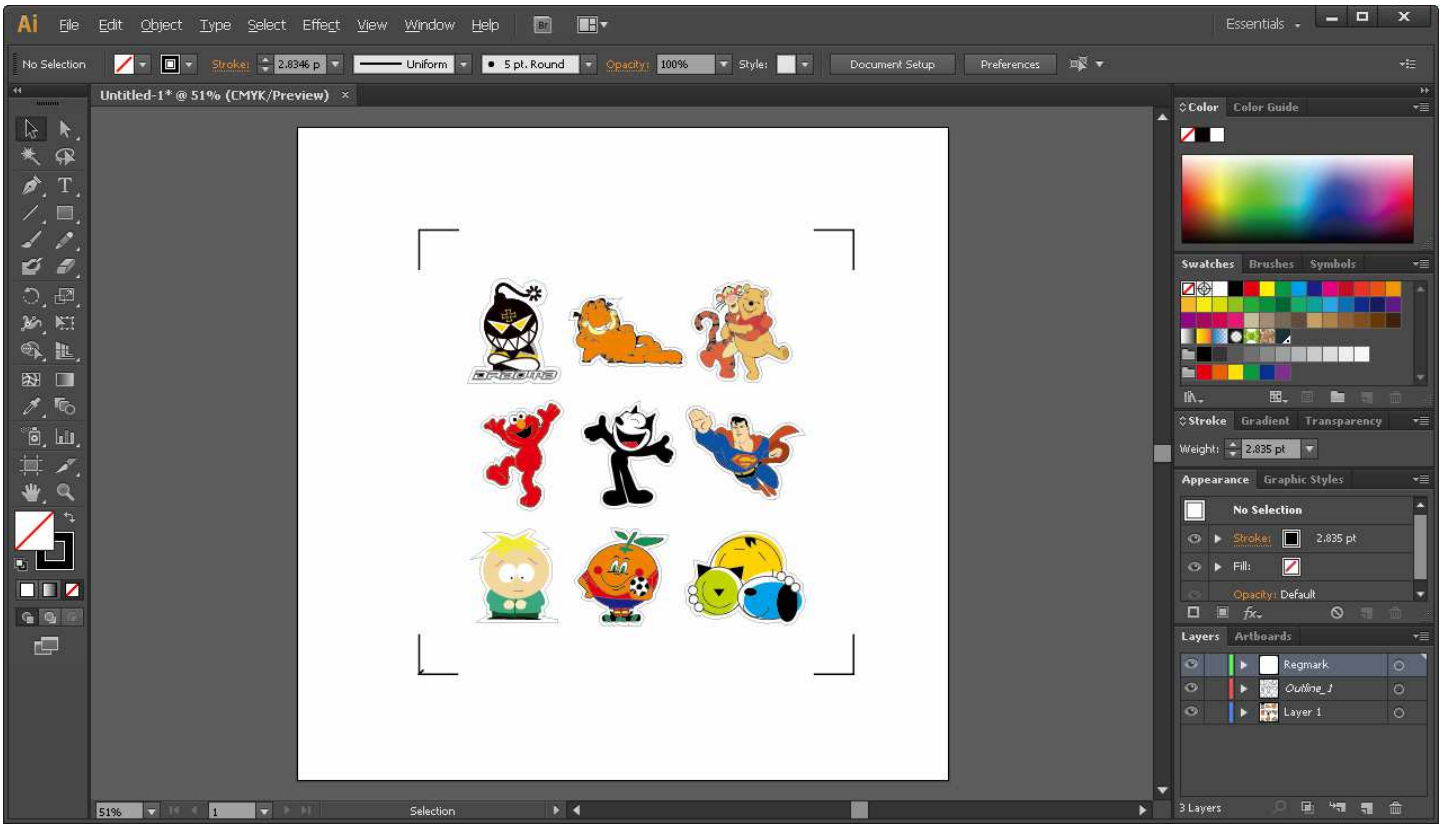
Step 7. Ensure the three items below are selected and click OK.



Step 8. Click Set Jog Marks in GreatCut2 under File.

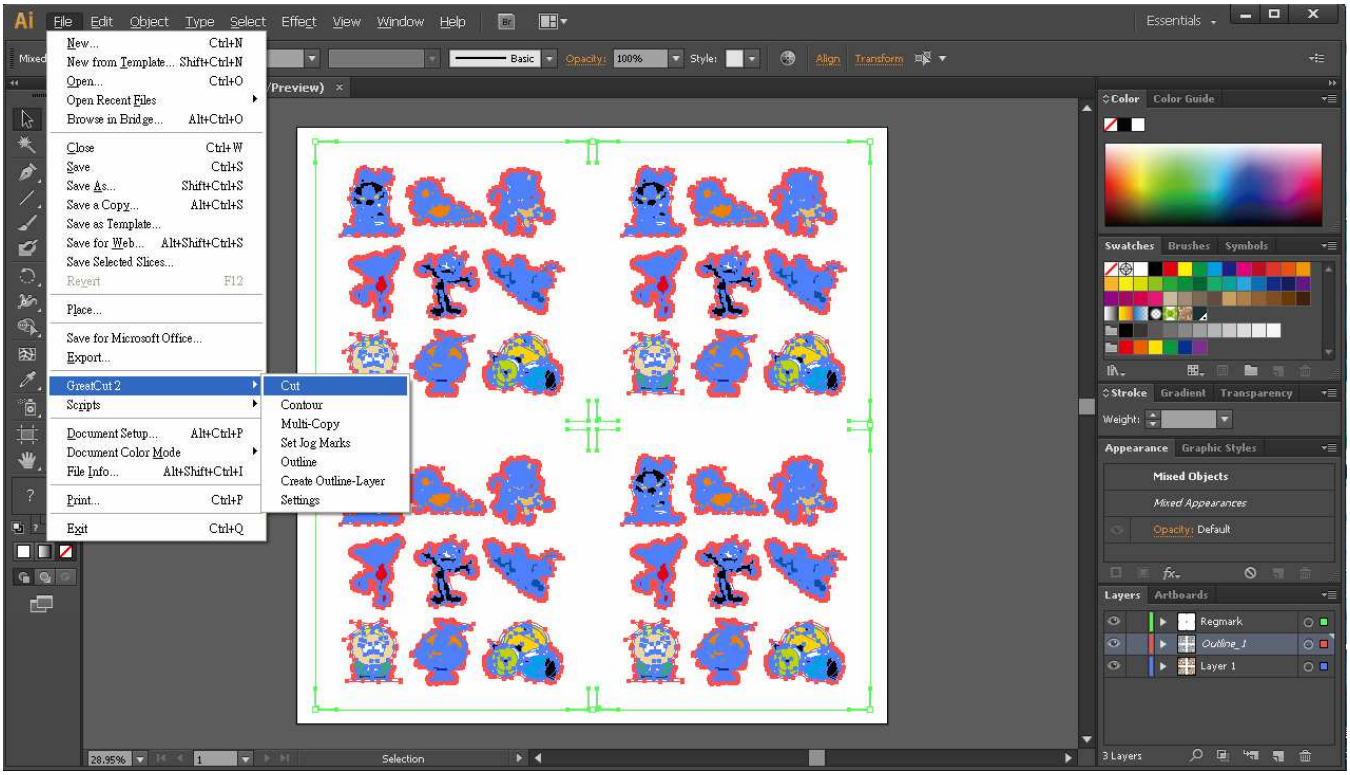


The system will create the 4 marks as shown in the picture below.

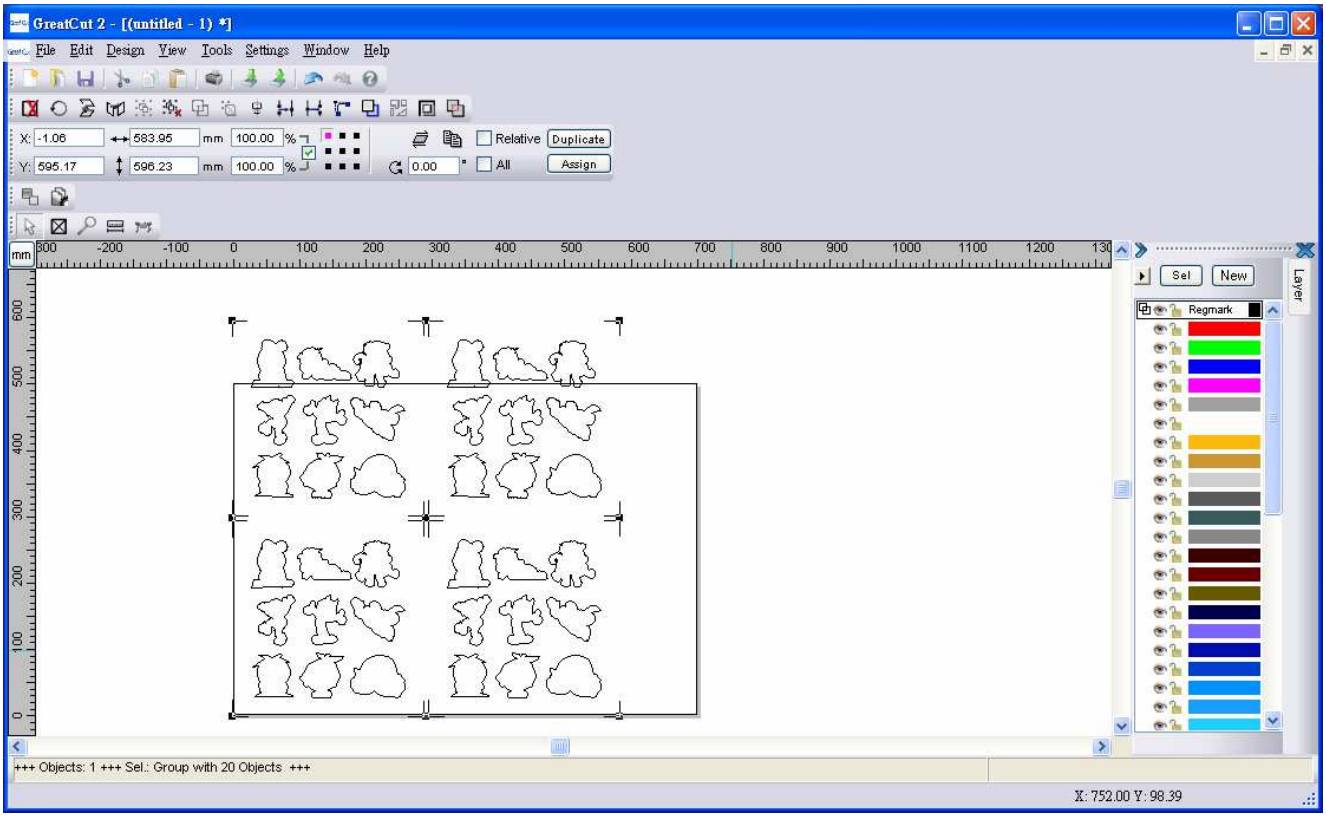


Output

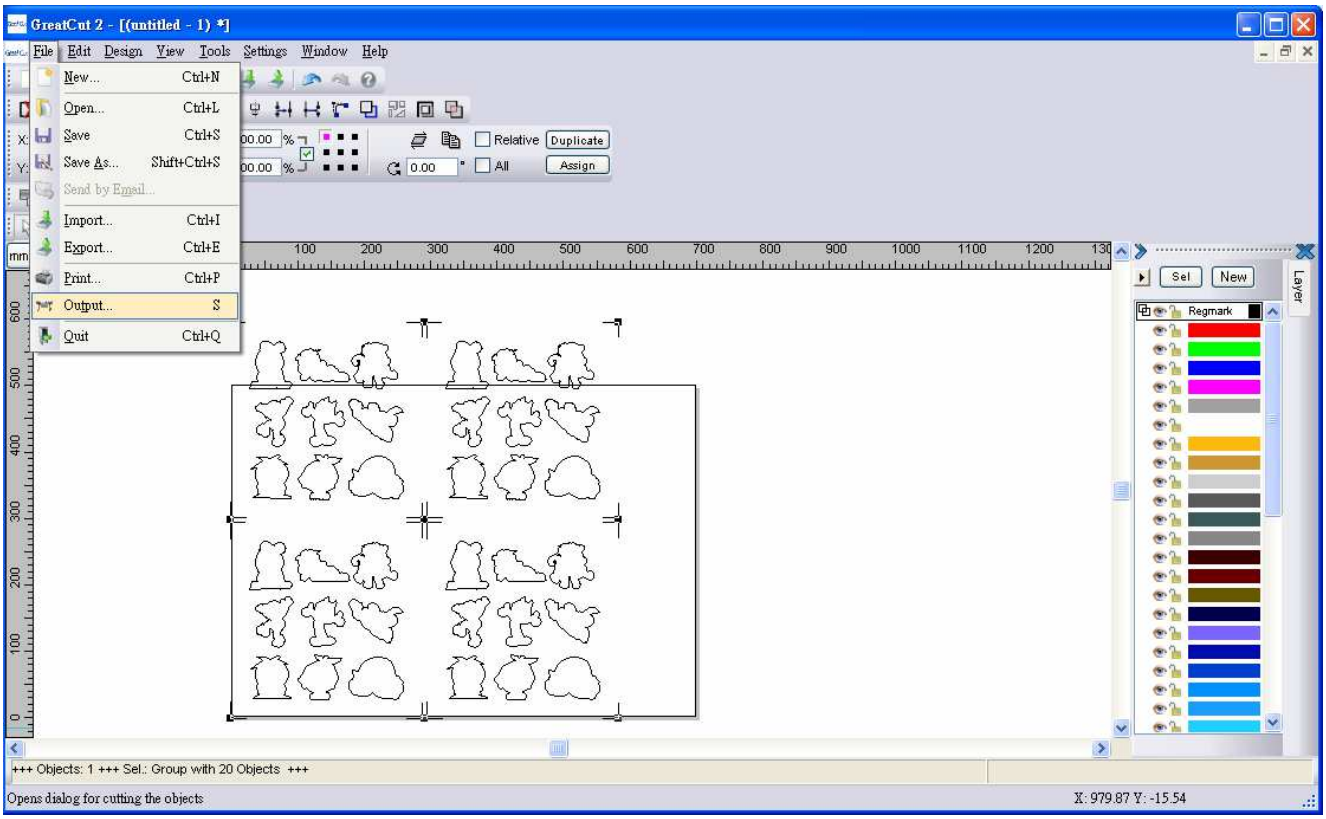
Step 1. Select both the entire object (including registration marks and the contour line) then click Cut in GreatCut2 under File.



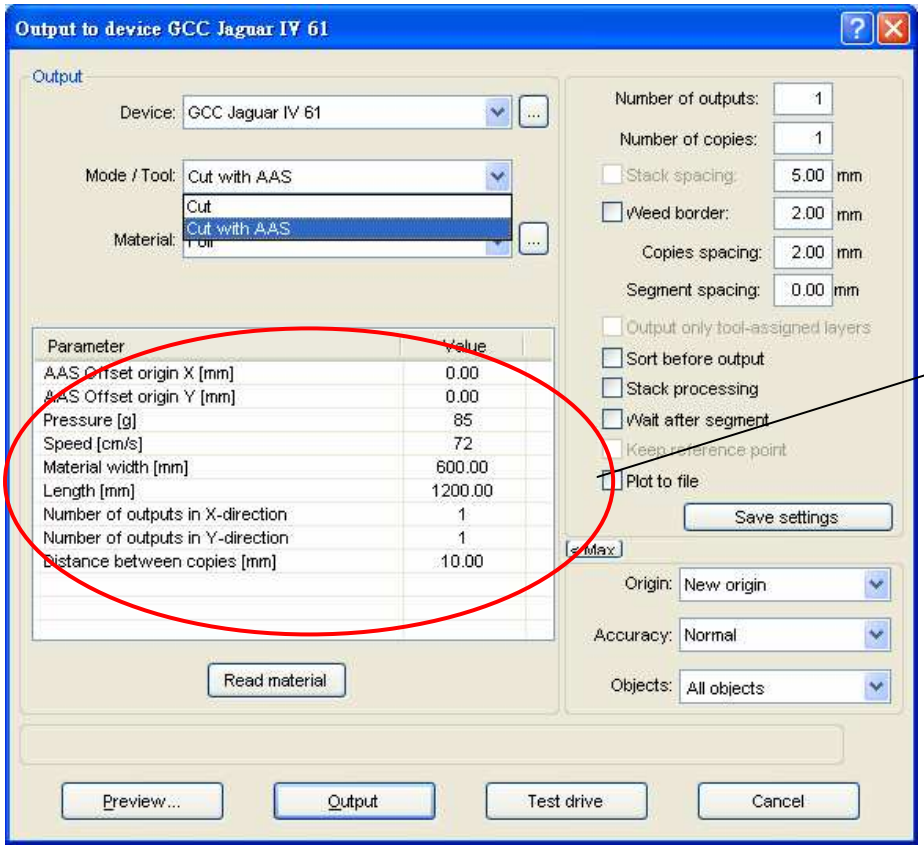
Step 2. The system will activate GreatCut2 automatically and import the registration marks and contour line to GreatCut 2.


GreatCut 2 - [(untitled - 1) *]
File Edit Design View Tools Settings Window Help
Relative Duplicate
All Assign
Sel New
Regmark
+++ Objects: 1 +++ Sel.: Group with 20 Objects +++
X: 752.00 Y: 98.39

Step 3. Select Output under File.

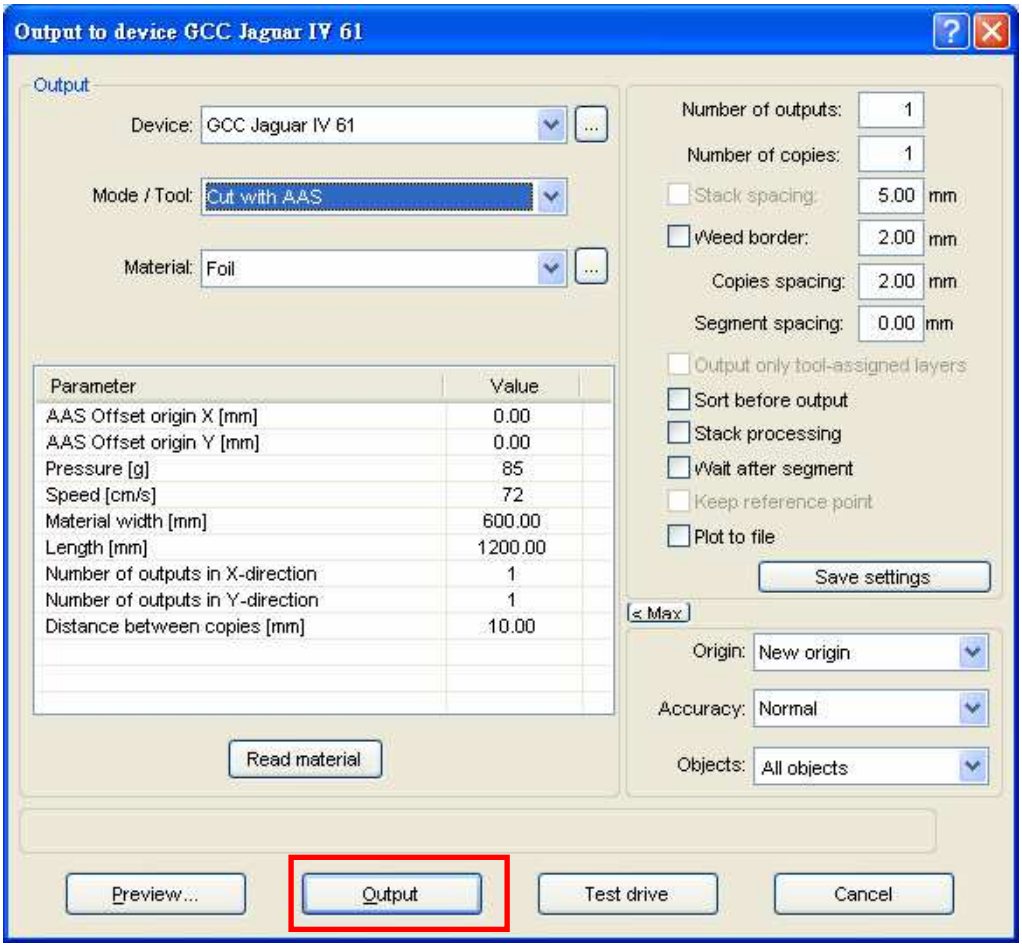


Step 4. Select Cut with AAS in Mode/Tool in the Output to device window.



Contour offset is the distance between the object and the contour line.

Step 5. Click output and the object will be sent to GCC Cutting Plotter

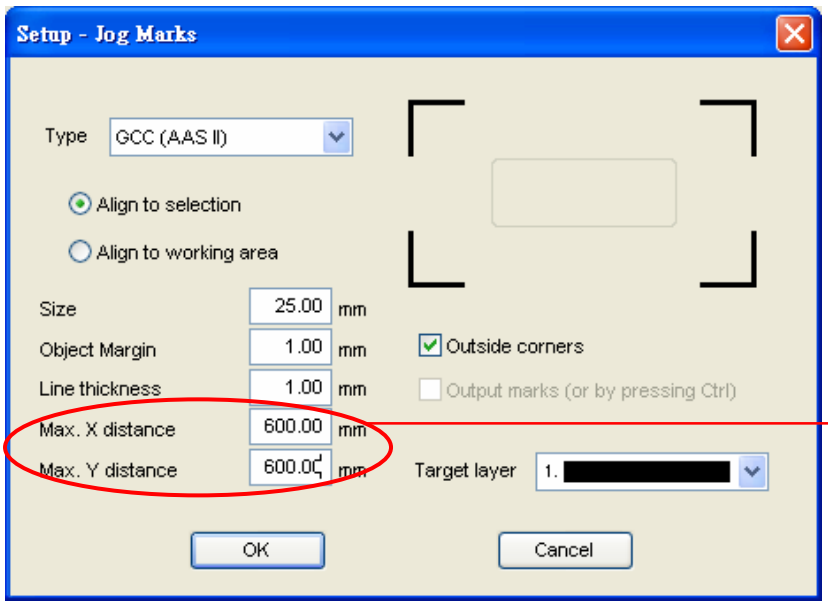


Advanced Settings

Segmental Positioning

For precise cutting quality, it is suggested to apply “Segmental Positioning” by adjusting the x and y distance when you are working on an extra long or large-size image to increase cutting quality.

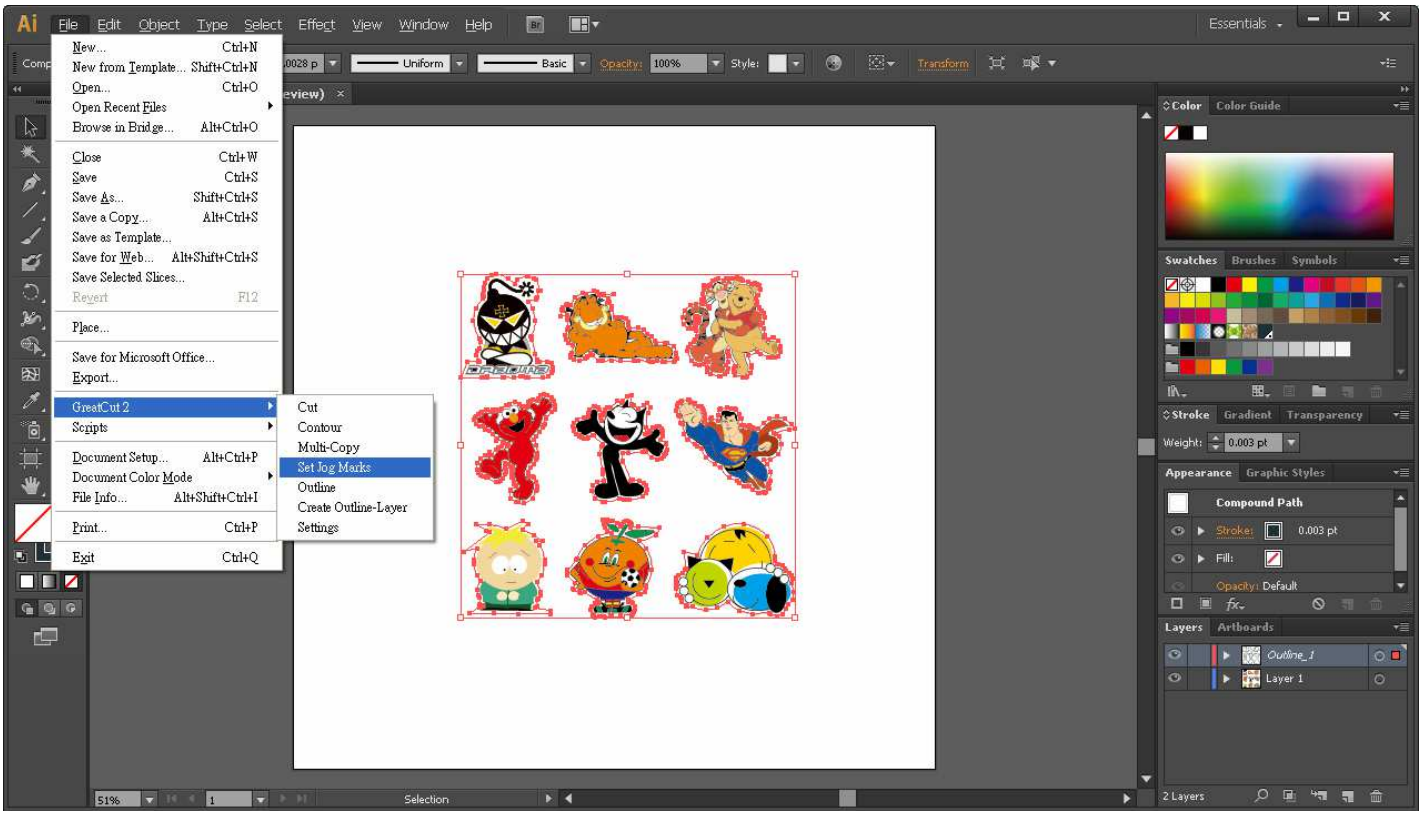
Follow the same steps in the **4-Point Positioning** section to complete the contour line setting and registration mark creation procedures. Adjust the size, object margin and line thickness of your registration marks and the space between registration marks by changing X, Y distance in the Setup-Jog Marks window and click OK.

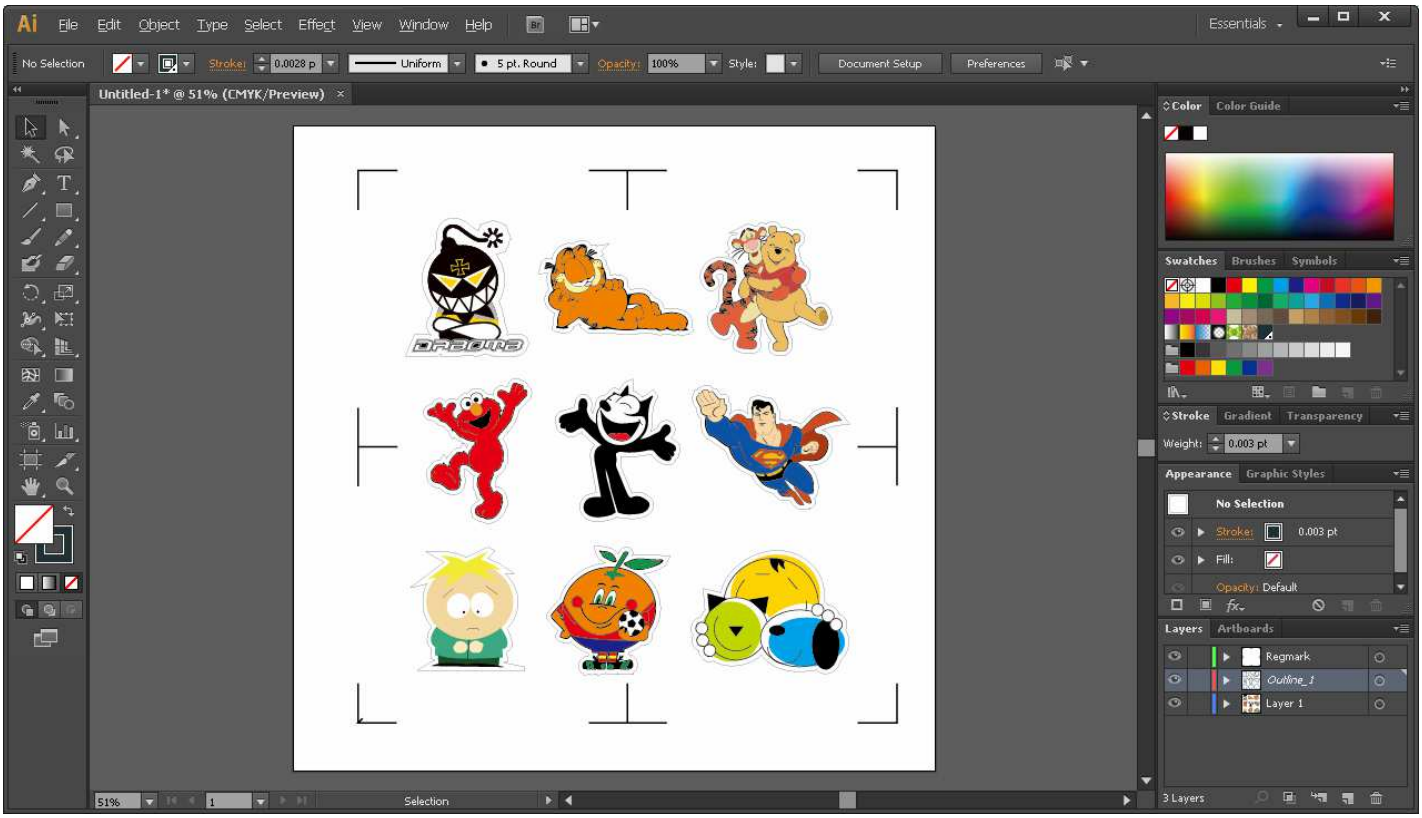


Segmental Positioning

- Max. x Distance: The distance of intermediate position on the X axis
  → Range: 200-500 mm
- Max. y Distance: The distance of intermediate position on the Y axis
  → Range: 200-500 mm

Click the Set Jog Marks Icon in the GreatCut 2 toolbar and 4 marks will be created as shown in the picture below.

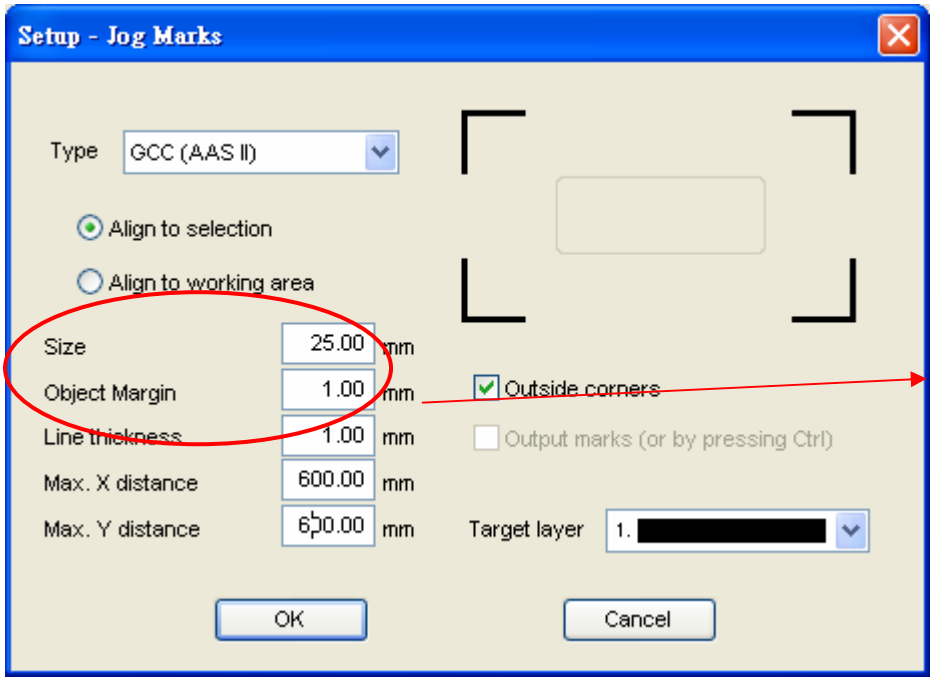




Follow the same steps in the **Output** section to output your image to GCC Cutting Plotter.

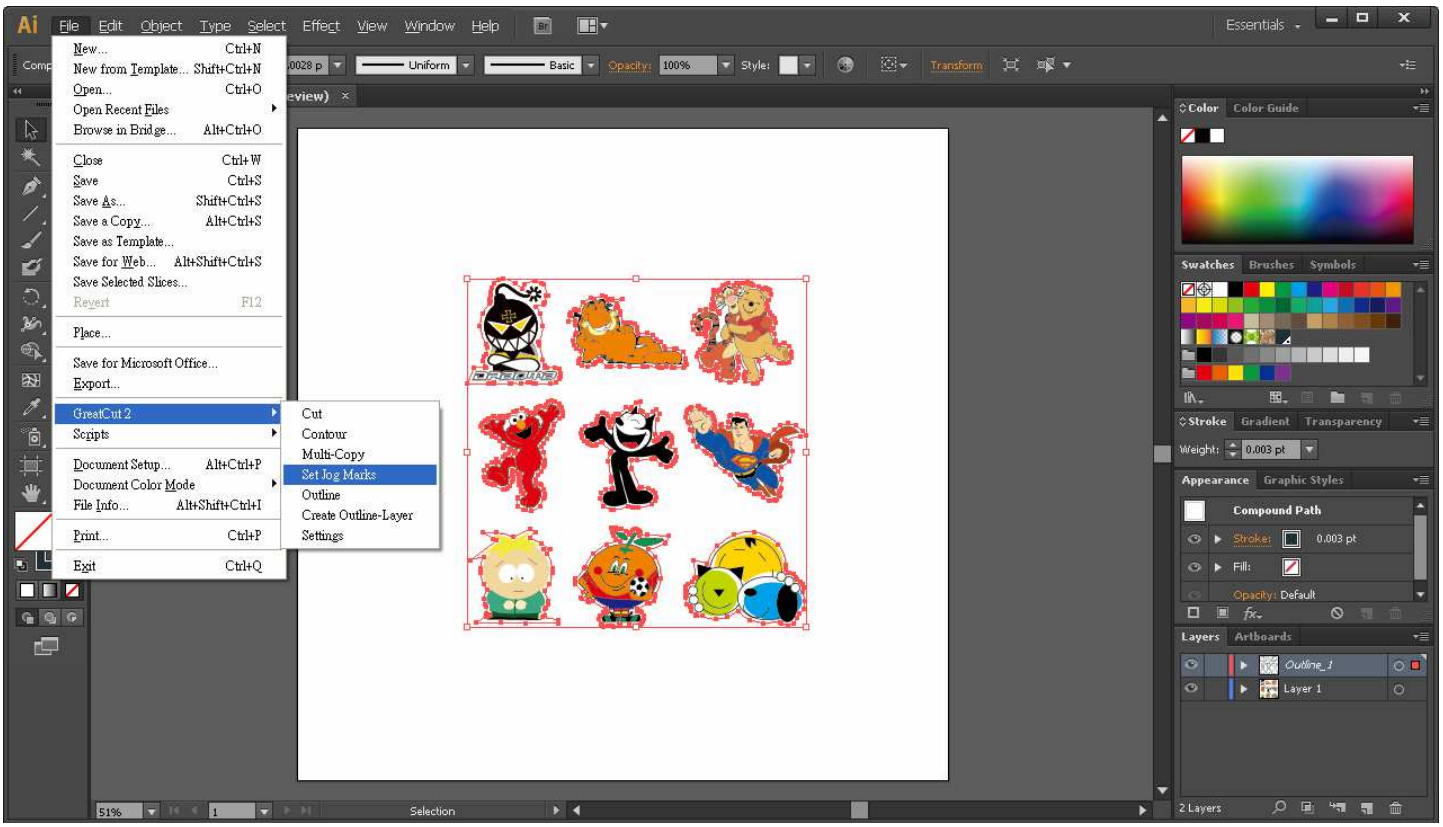
Multiple Copies

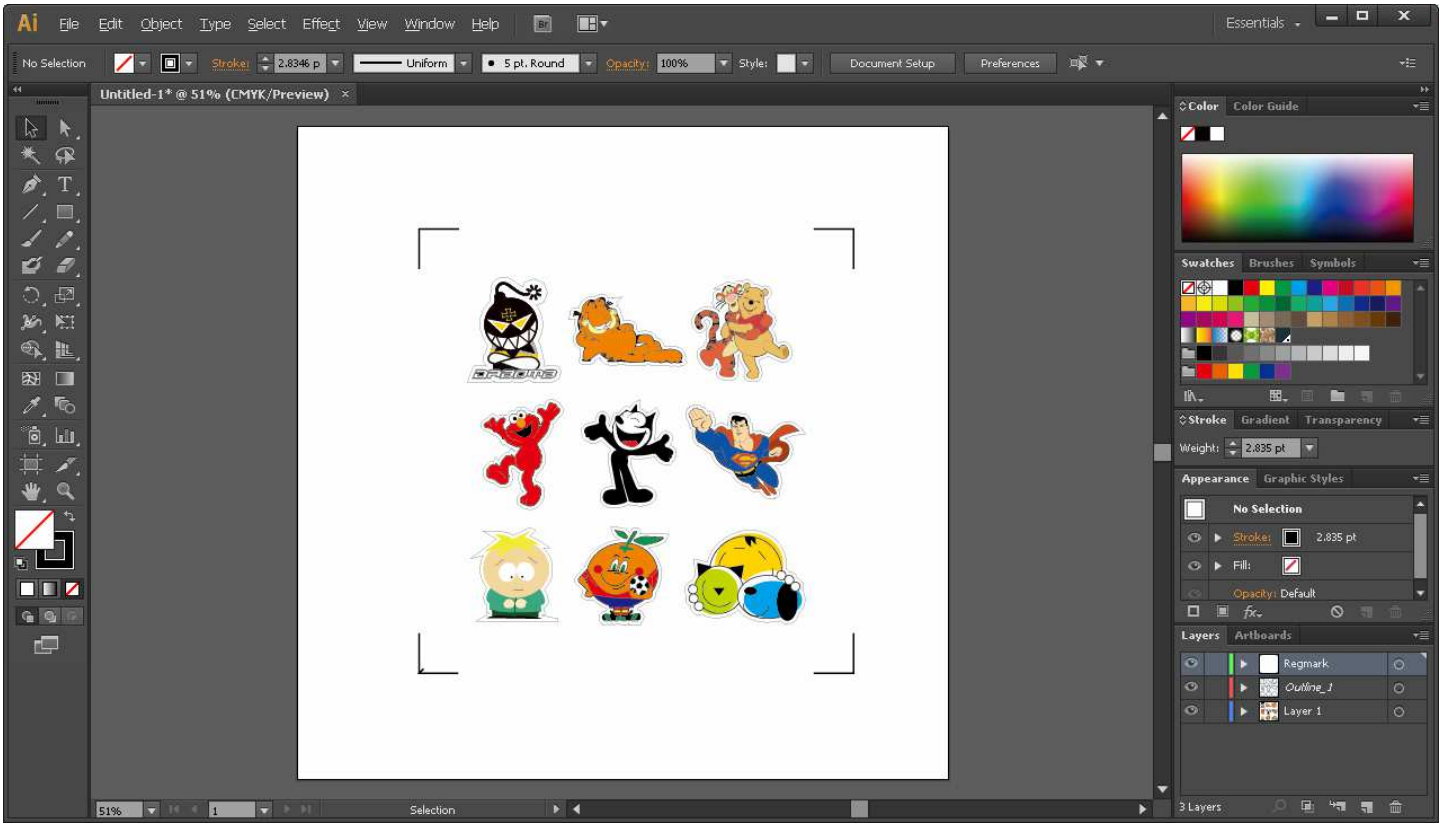
Follow the same steps in the **4-Point Positioning** section to complete the contour line setting and registration mark creation procedures.



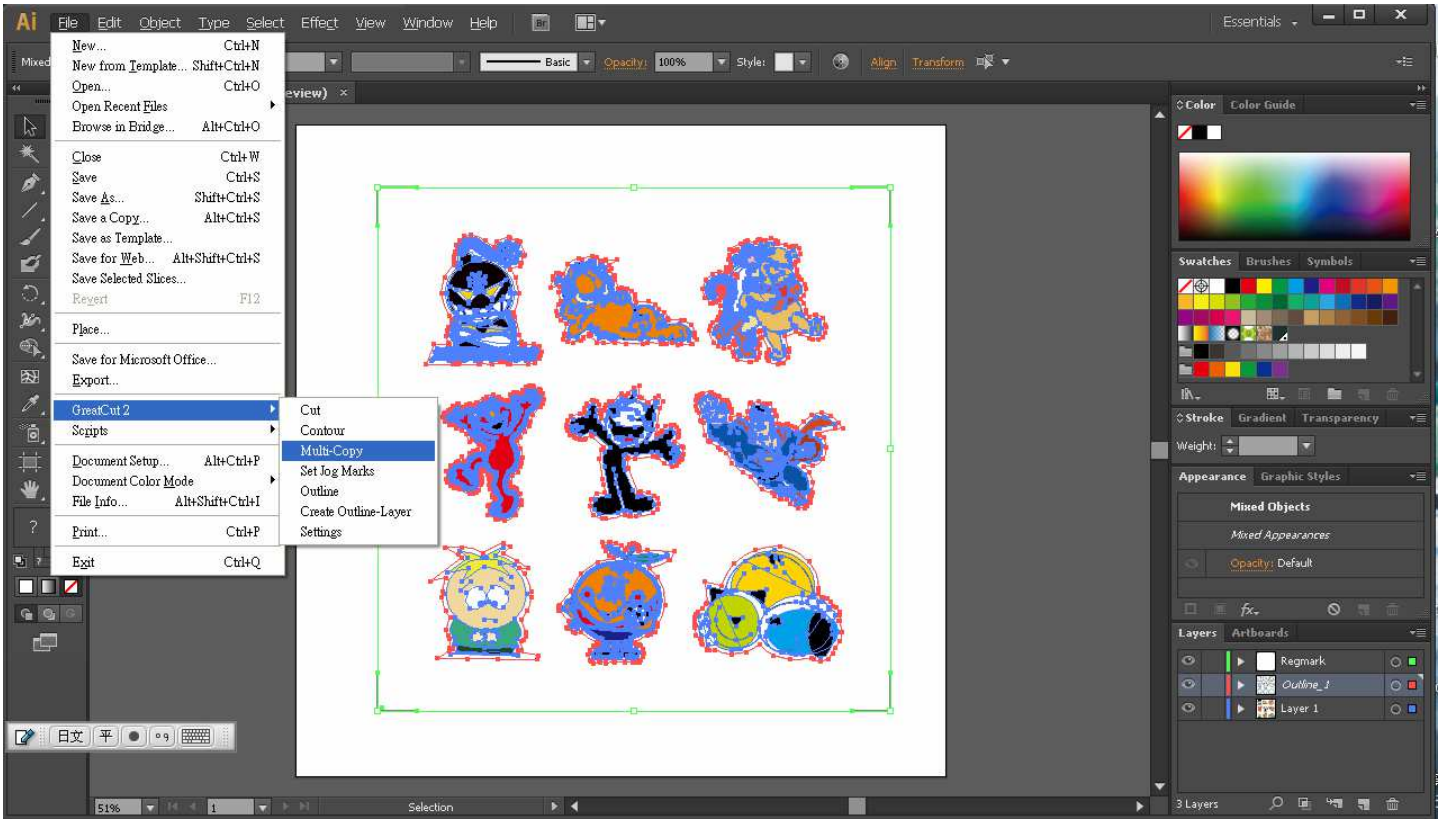
When you apply the “Multiple Copies” function, the value that has been set in this section will still be applied.

Click the Set Jog Marks Icon in the GreatCut 2 toolbar and the system will create the 4 marks as shown in the picture below.

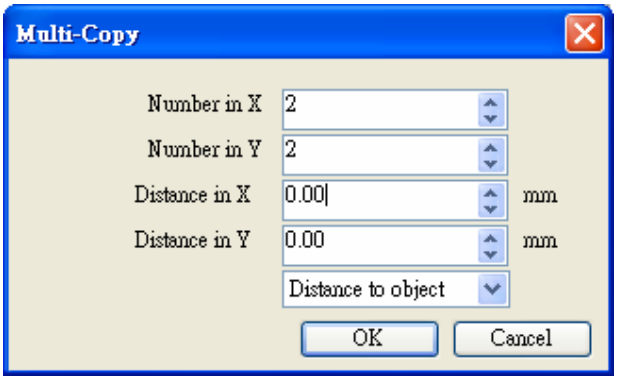




Click Multi-Copy in GreatCut2 under File.

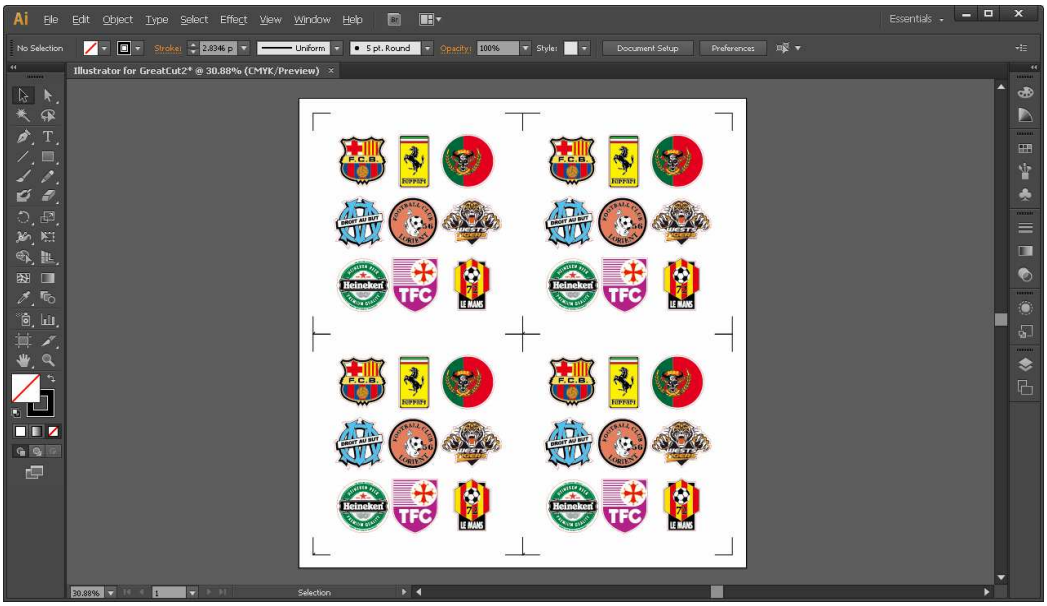


Complete the Number in X/Y (the number of copies desired on the X/Y axis) and Distance in X/Y (distance between each copy) settings then click OK.



Note: The spacing of vertical & horizontal (Offset X & Y) should be ≥ 20mm or = 0mm; users are advised to set the Distance in X/Y as 0 mm to remove the space between each copy to avoid the waste of materials.

The system will create several copies of the object with registration marks as shown in the picture below.



Follow the same steps in the **Output** section to output your image to GCC Cutting Plotter.

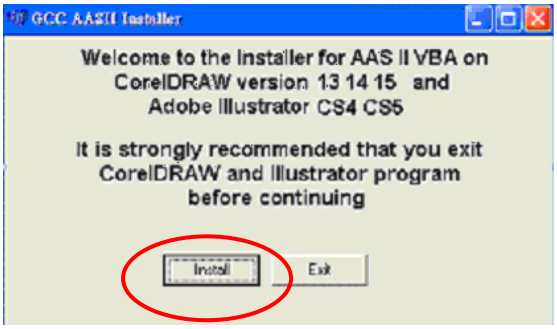
Illustrator Plug-In Instruction

AASII VBA Installer is applicable for Illustrator Version CS4, CS5, CS6, CC.

Installation

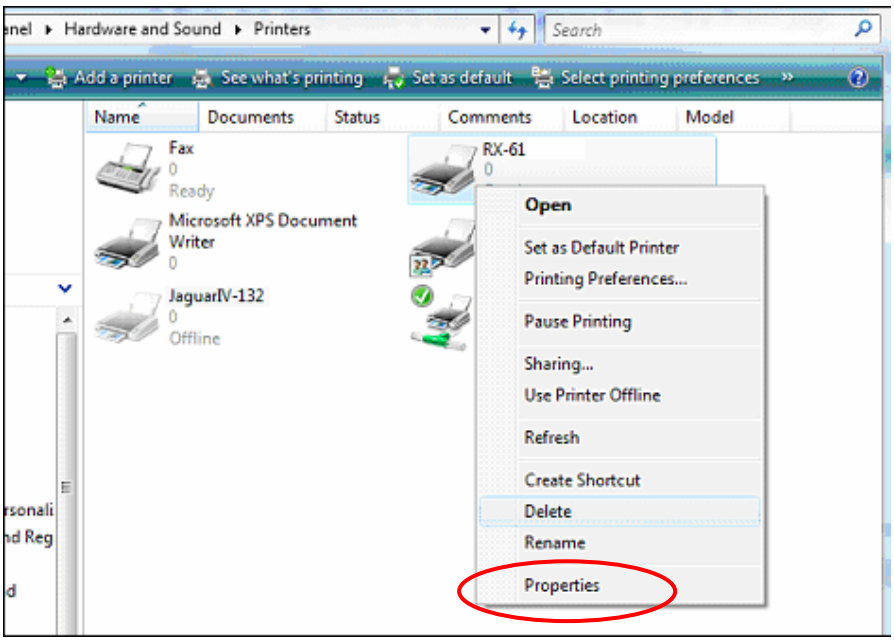
1. Check the “AAS Illustrator Installer” folder in RX series Installation CD, and double click the “AASIIInstaller.exe” file to run the installation program.

2. Press the “Install” button to begin installing GCC AASII Illustrator VBA.

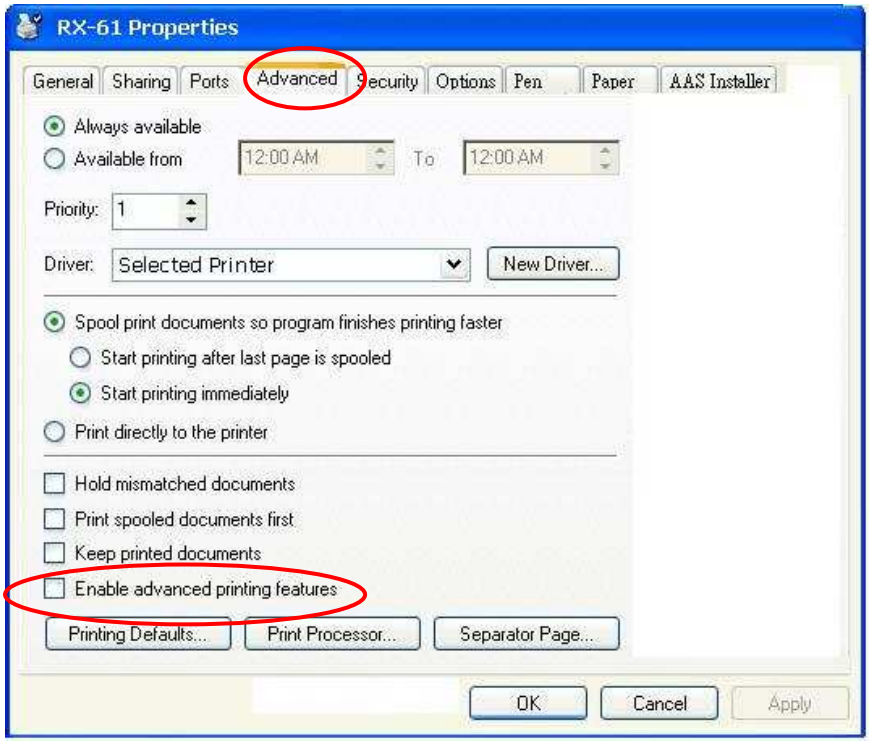

GCC AASII Installer
Welcome to the installer for AAS II VBA on
CorelDRAW version 13 14 15 and
Adobe Illustrator CS4 CS5
It is strongly recommended that you exit
CorelDRAW and Illustrator program
before continuing
Install
Exit

Printer Setting

Step1: Right click on the printer and select Properties to open the Printer Properties page



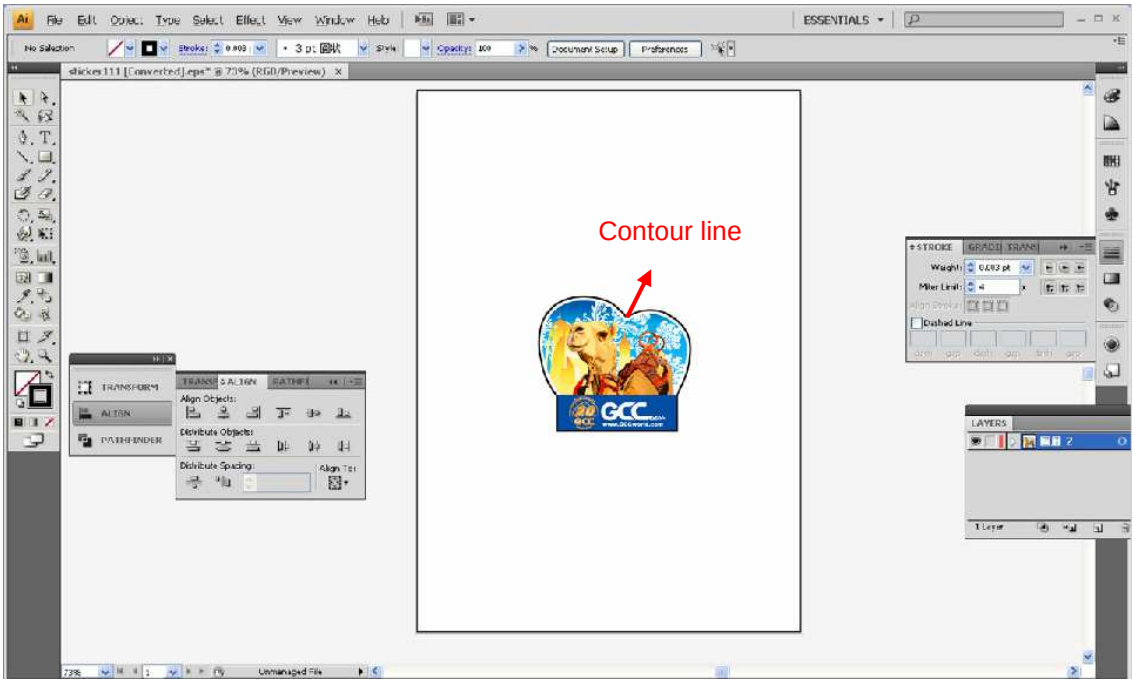
Step2: Go to the Advanced page and make sure the Enable advanced printing features box is unchecked.



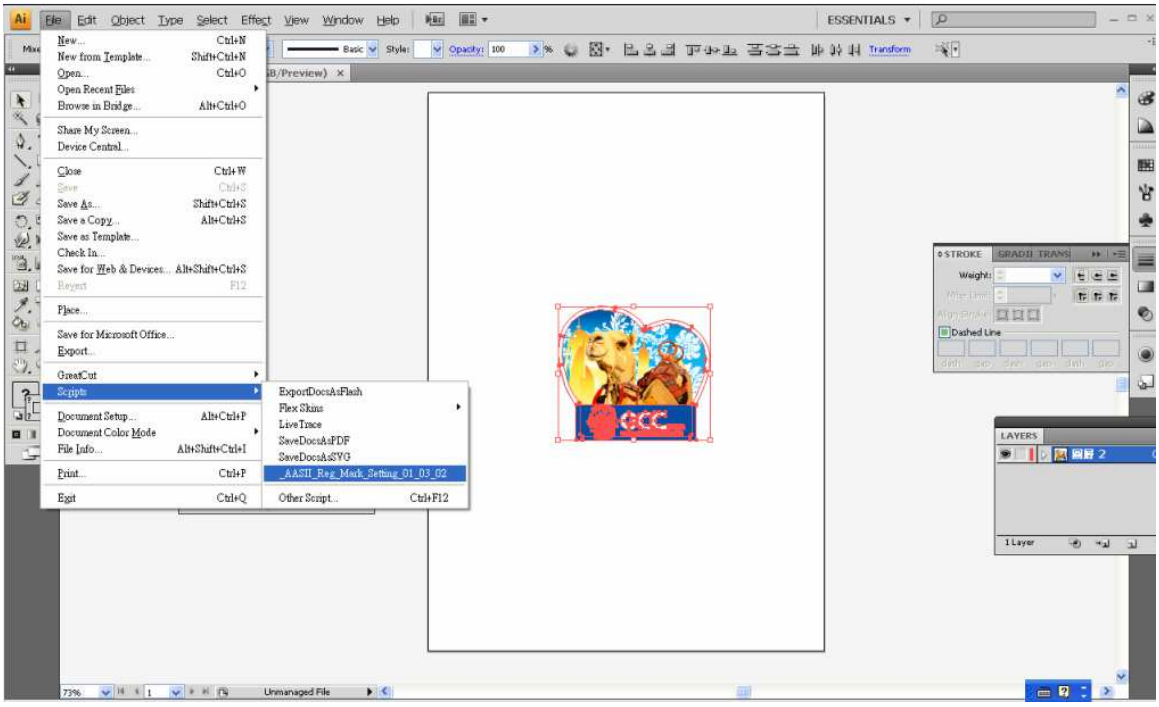
User Instructions

1) Open Illustrator.

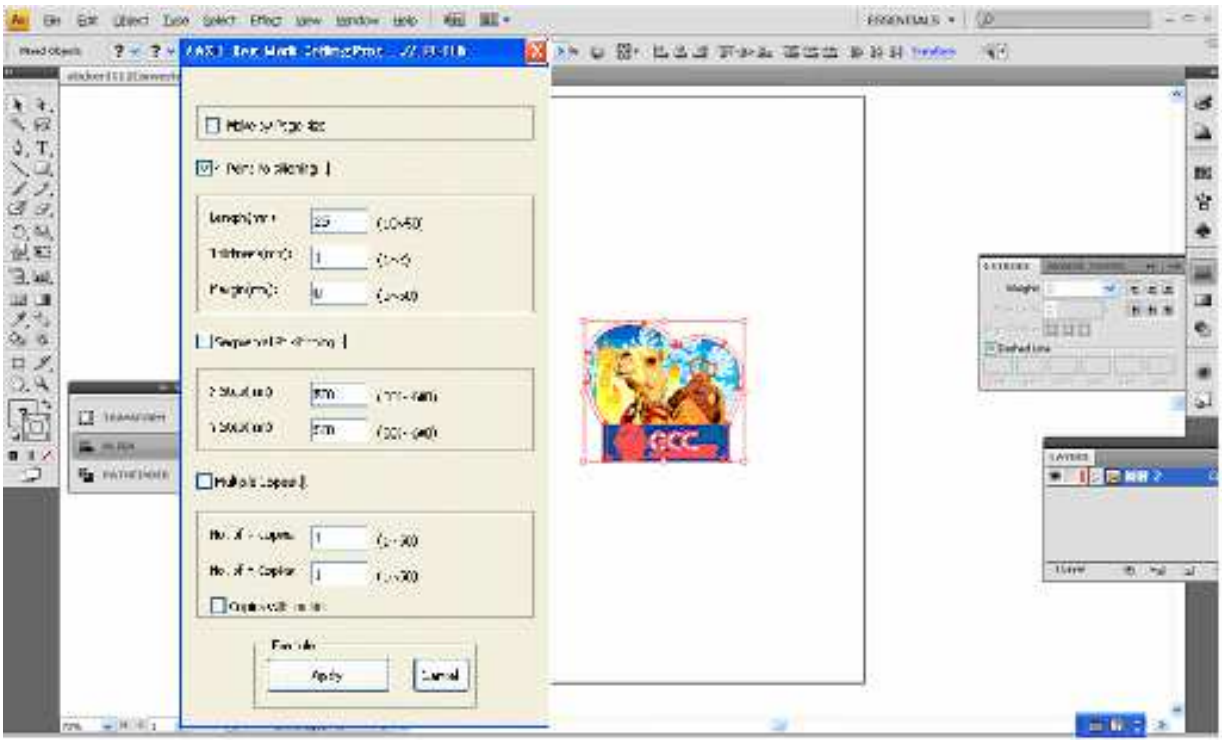
2) Edit your image and create a contour line (Note: you must have the line width set as 0.001mm).



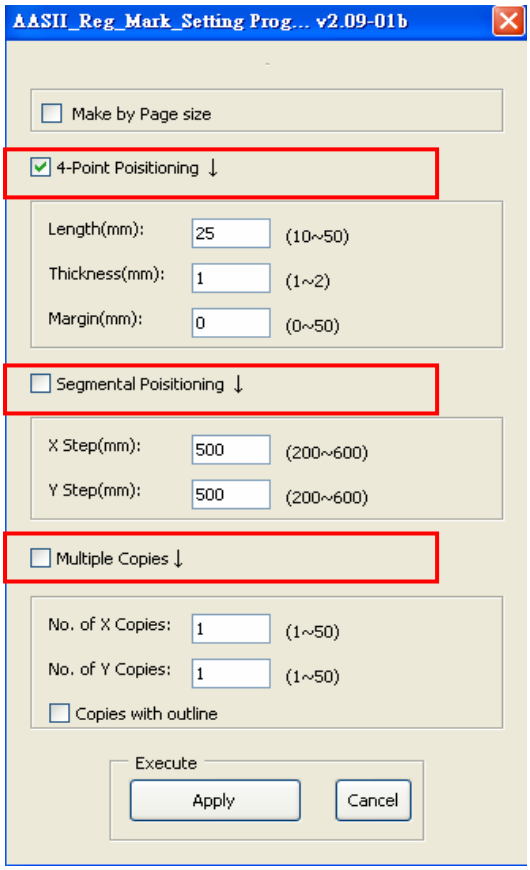
3) Click on the image and apply the AAS function (File→Scripts→_AASII_Reg_Mark_Setting_01_03_02)



4) Select the registration marks needed



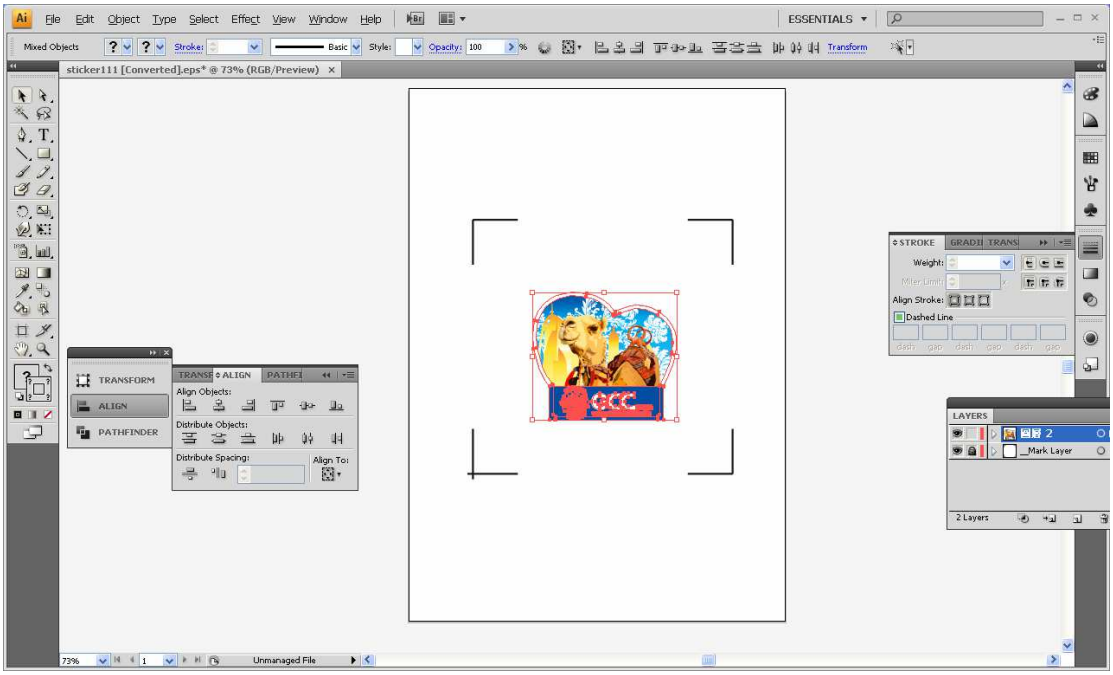
5) Three types of registration marks are introduced here: 4-Point Positioning, Segmental Positioning and Multiple Copies.



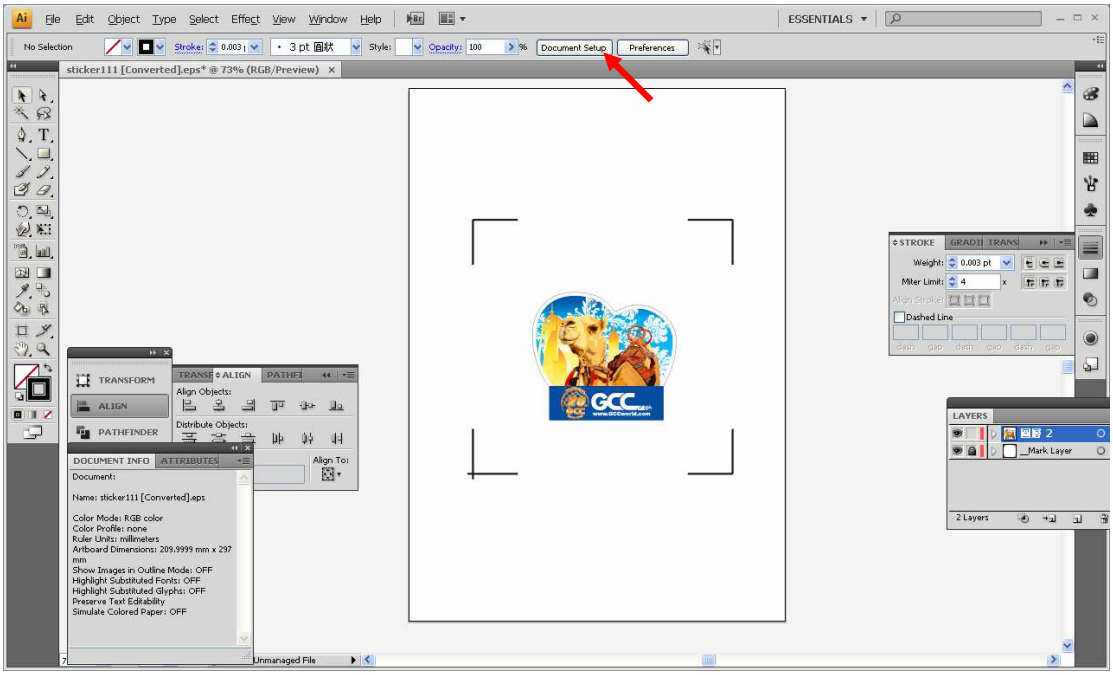
Note:

The values entered in the “4-Point Positioning” section (length, thickness and margin) will still be applied when you tick “Segmental Positioning” or “Multiple Copies”.

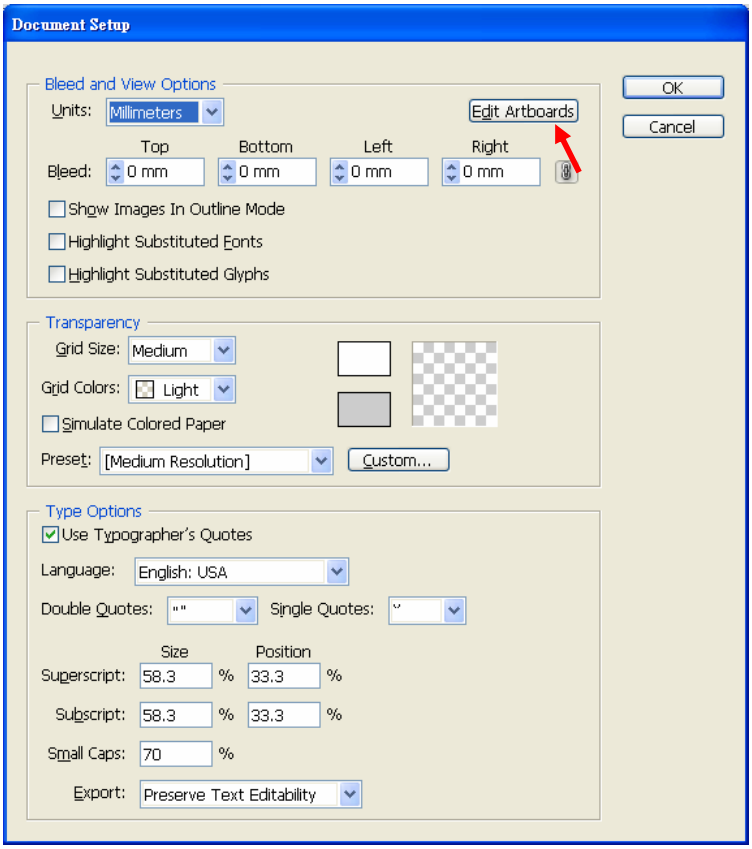
6) Confirm the registration marks (the 4-Point Position mark is used as an illustration in the following steps).



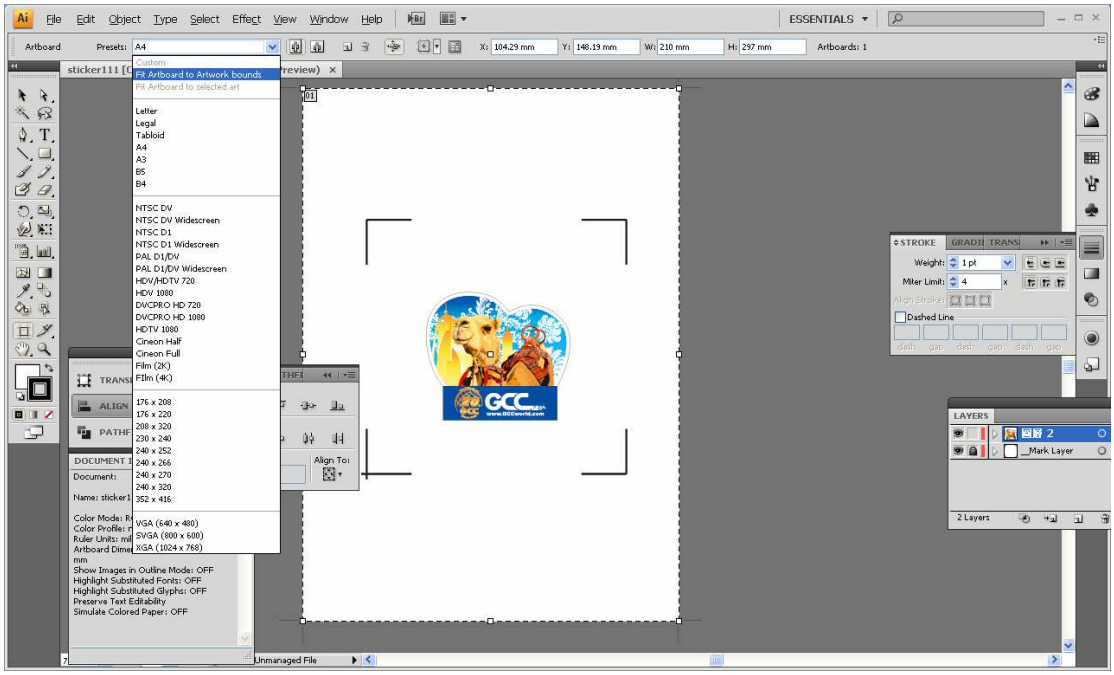
7) Click on the blank area on the page and then click “Document Setup”.



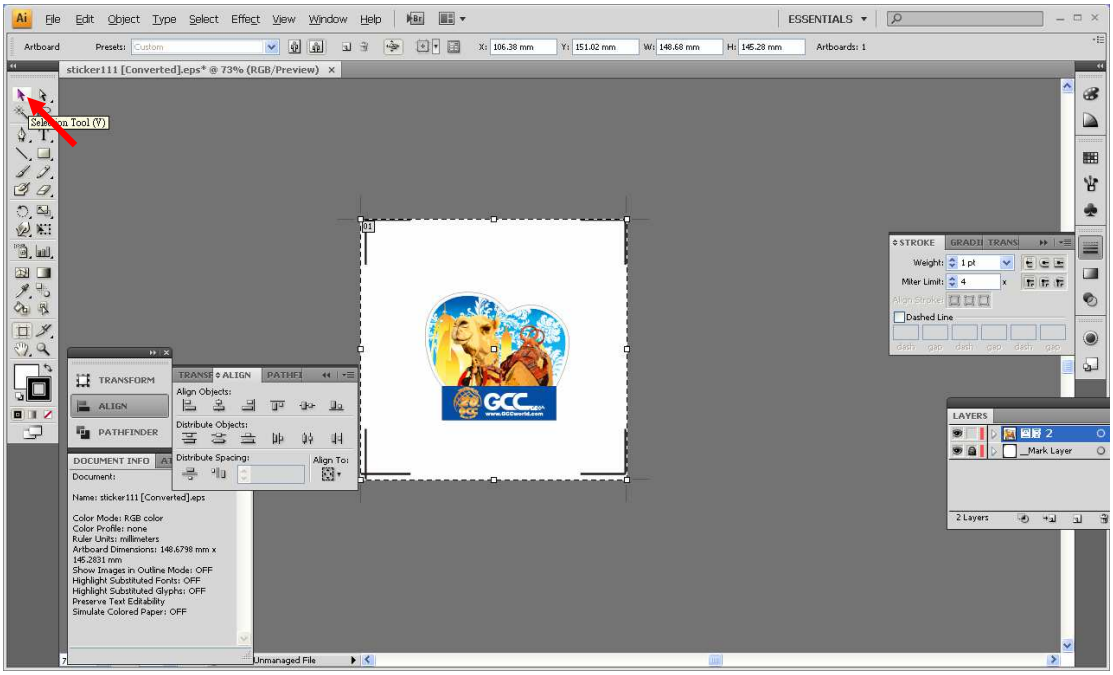
8) Hit “Edit Artboards”.



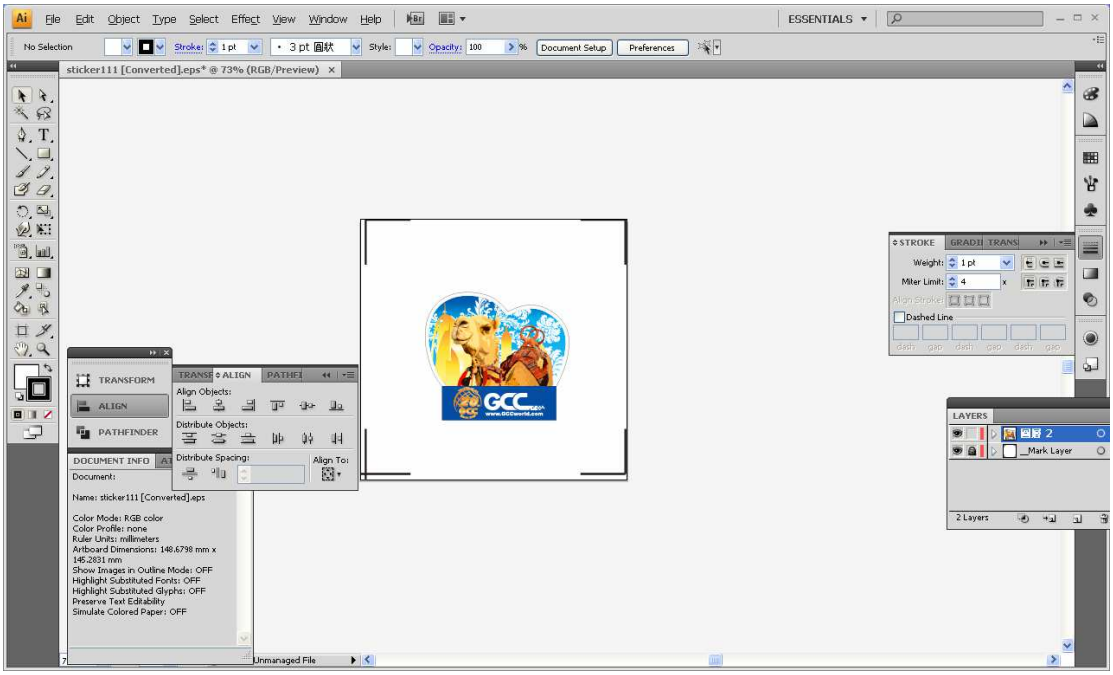
9) Click on “Presets → Fit Artboard to Artwork bounds”.



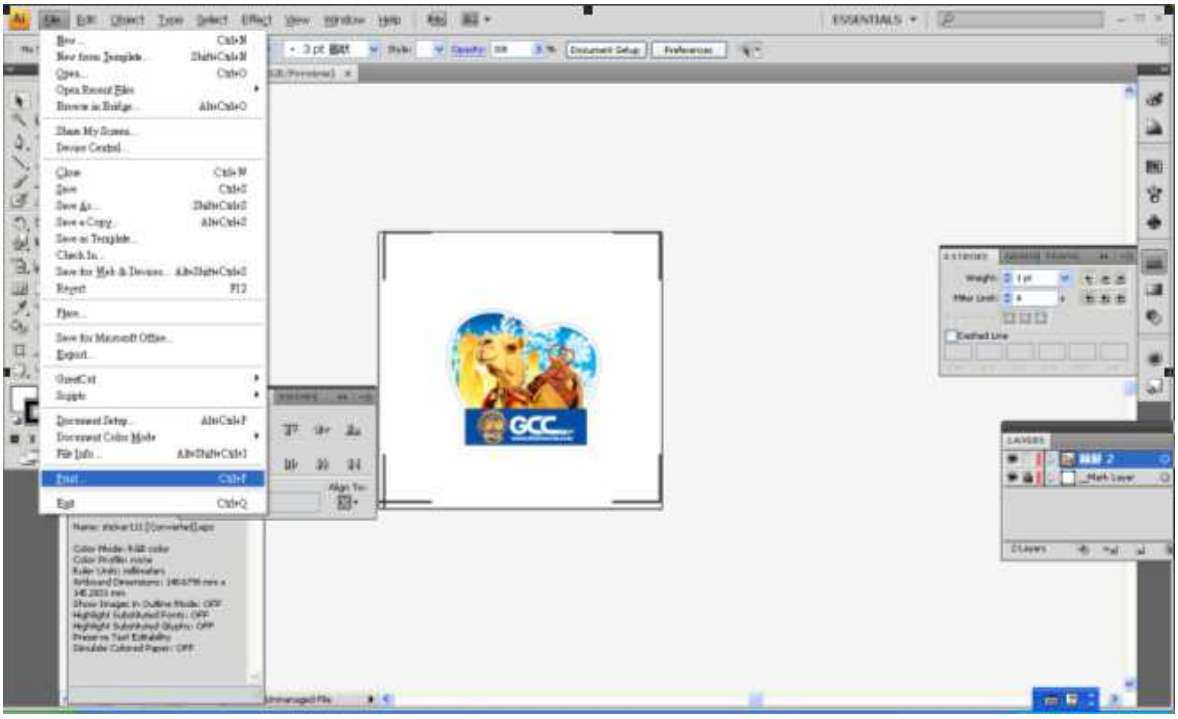
10) Please move your mouse to the tool bar on the left when step 10) is finished and then click “Selection Tool”.



11) This will take you back to the edit mode.

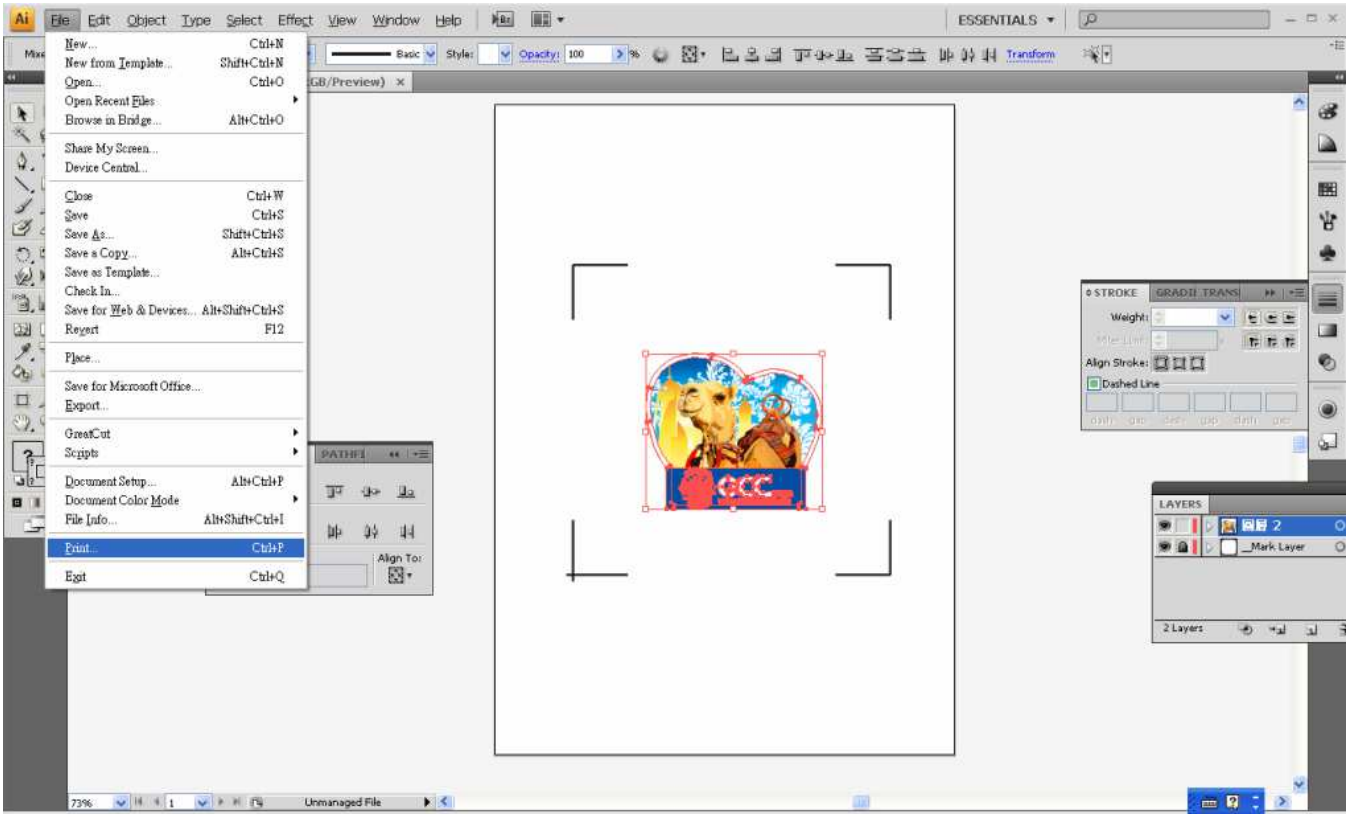


12) Print out the file with the contour line and the registration marks.

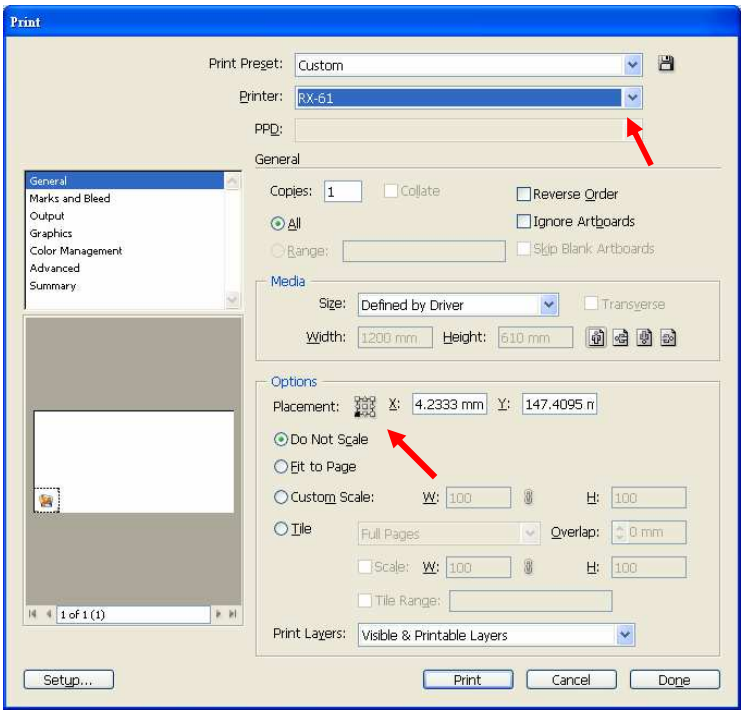


13) Place the printed file on the cutter, lower the pinch rollers and then position the carriage at the origin of the registration marks.

14) Send the file to the cutter.



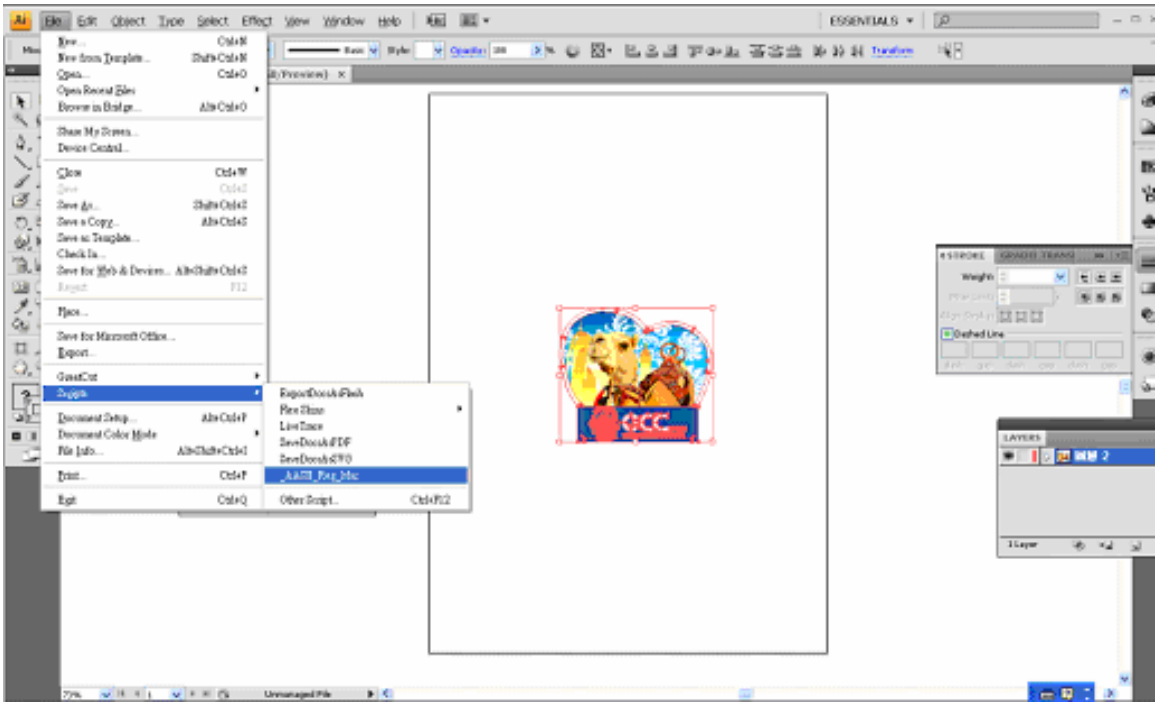
15) Select the cutter model, position the object in the bottom left corner.



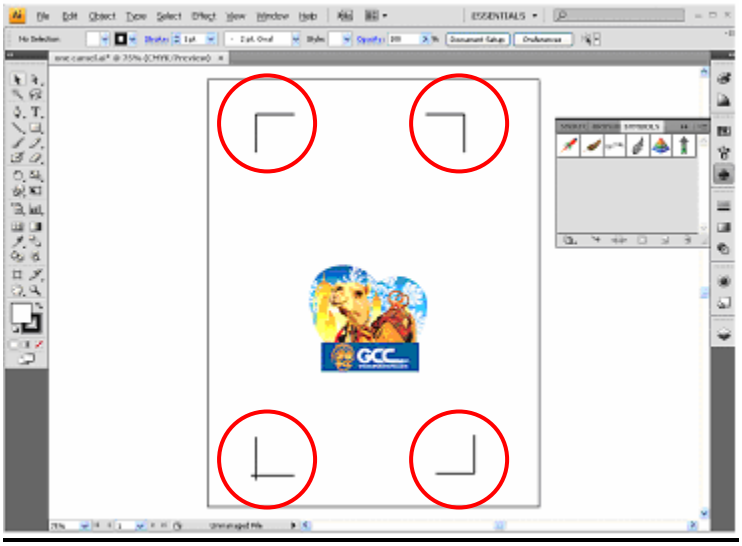
16) Your job is now completed.

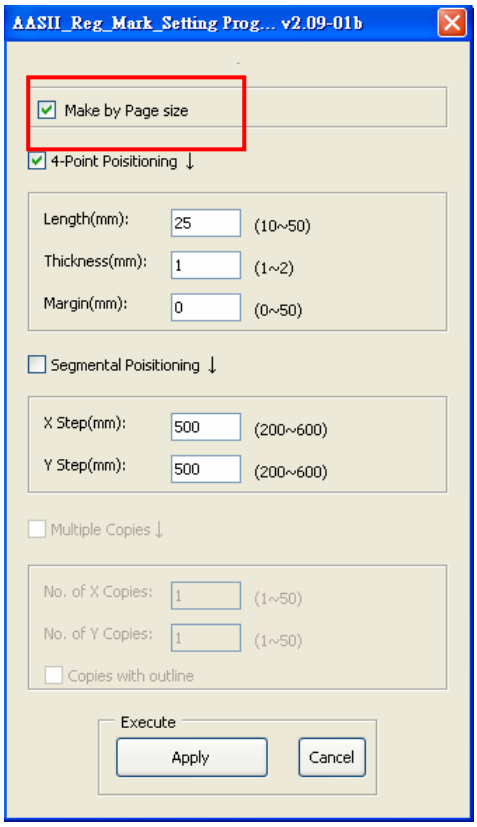
Add Registration Mark by page size

If you want to create registration mark by page size, go to “Scripts” under “File” and select “_AASII_Plug_In”



Tick “Make by page size” and click “Apply” and the registration mark will be created on the 4 corners of the page automatically, sown as below.





Note:

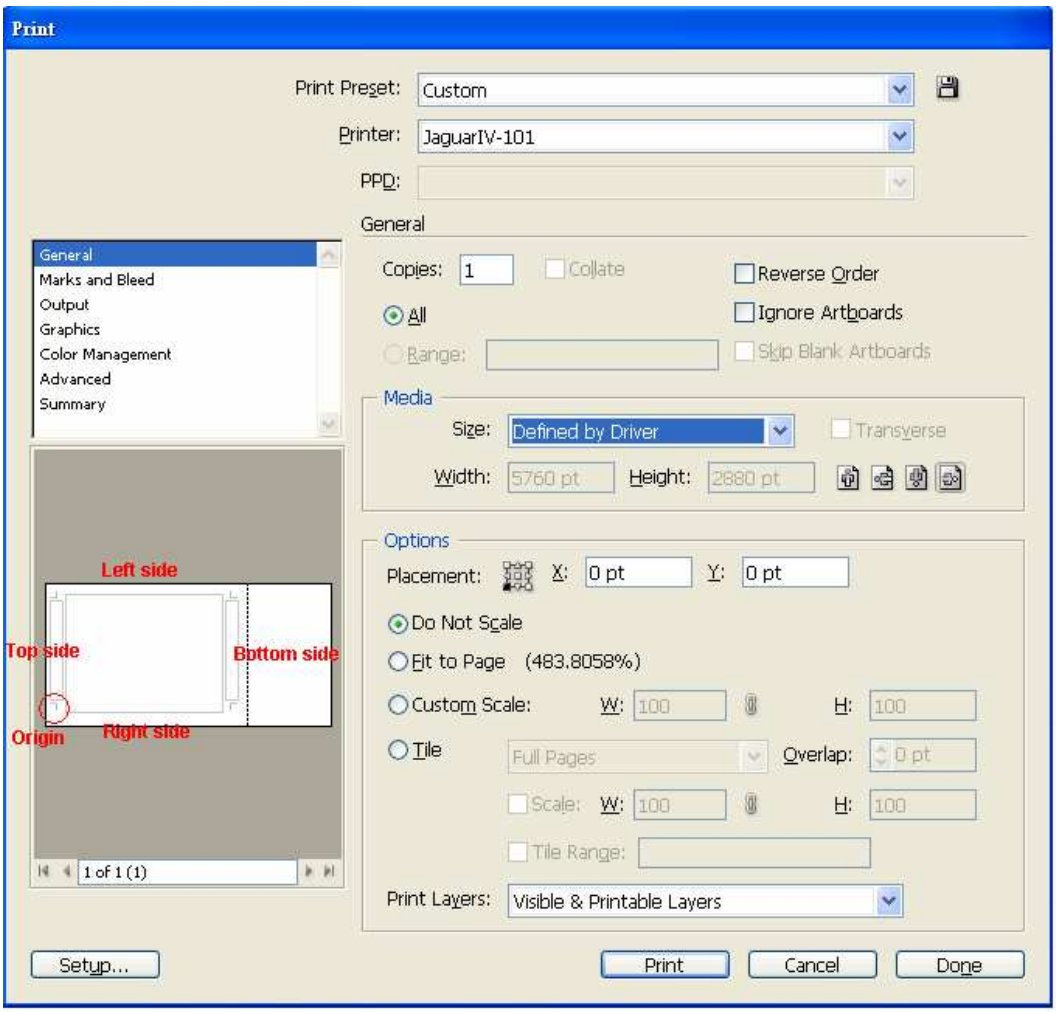
The length setting will be in the range of 10-50mm according to your page size

Workable area

It allows users to edit and cut graphics in the area outside the registration marks when adding registration marks by page.

For A4 size media sheet, the workable area is 2.5mm extended from the registration mark on left and right sides and 4.5mm extended from the registration mark on top side. On the bottom side, it is suggested to leave at least 25mm margin from the edge of media sheet to prevent sheets dropping or any error occurred while media sizing.

For A3 size media sheet, the workable area is 10mm extended from the registration mark on the left side, 9mm extended from the registration mark on the right side and 11mm extended from the registration mark on top side. On the bottom side, it is suggested to leave at least 25mm margin from the edge of media sheet to prevent sheets dropping or any error occurred while media sizing.

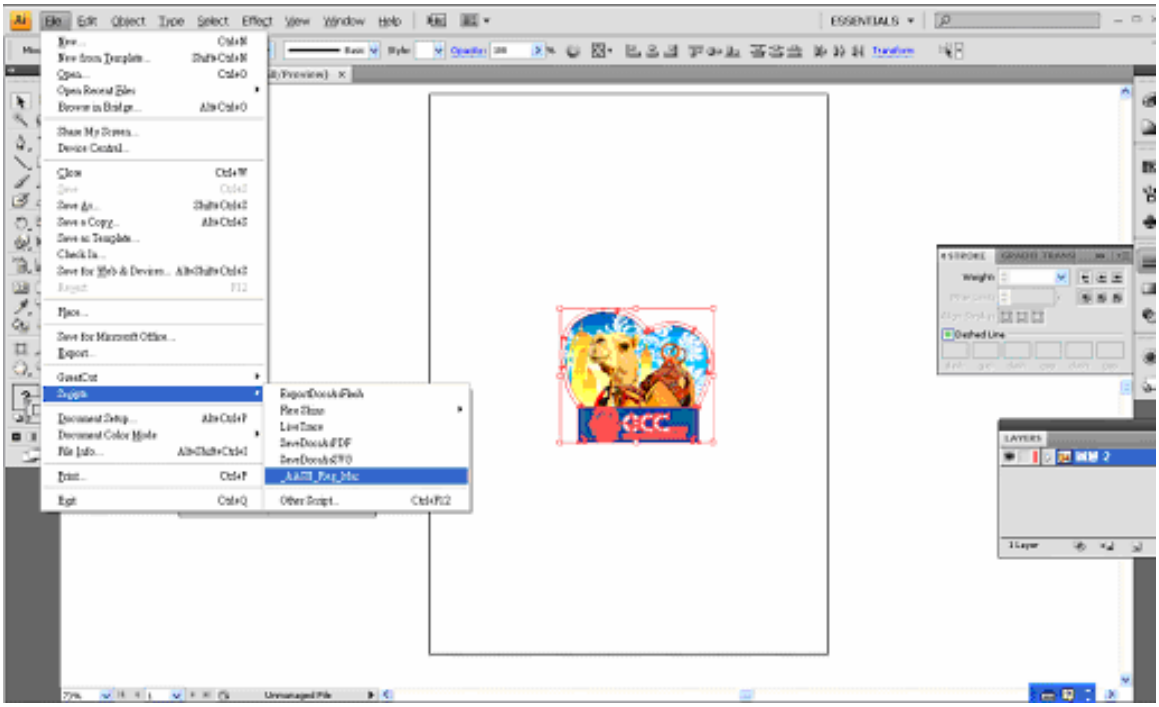


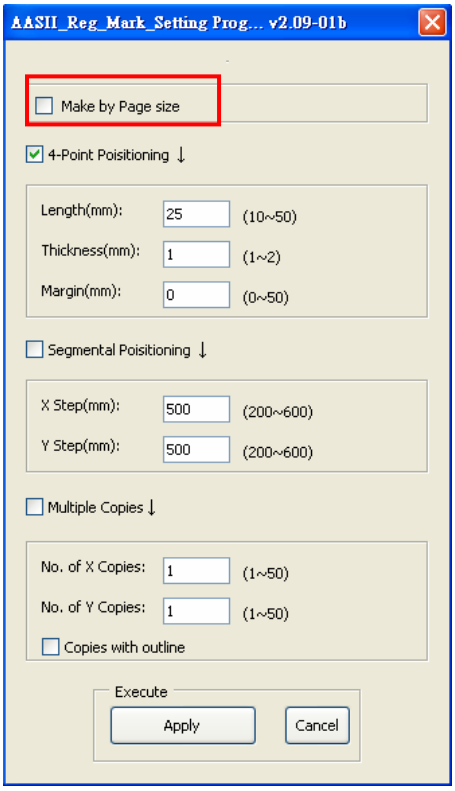
NOTE: Select “**Edge**” mode when media sizing to allow the media sheet to be unrolled. If you select “**Single**” mode, the media sheet will not be able to be moved back and hence fail to be detected by front paper sensor.

Add Registration Mark by Object

If you add registration mark by Object, you will be offered three options of registration marks.

Firstly, select the graphic which you want to add registration mark on and go to “Scripts” under “File” and select “_AASII_Plug_In”.

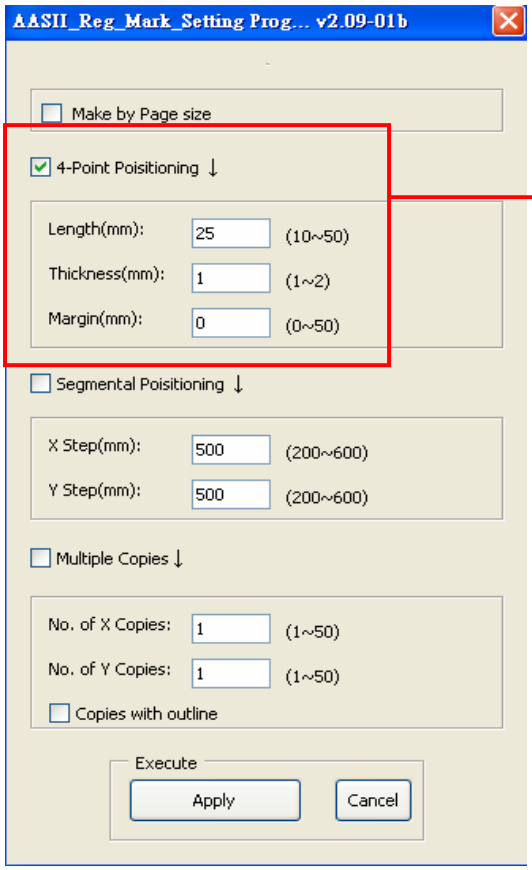




Make sure to untick “Make by page size” and choose one of the registration mark types whichever is suitable.

Three types of registration marks

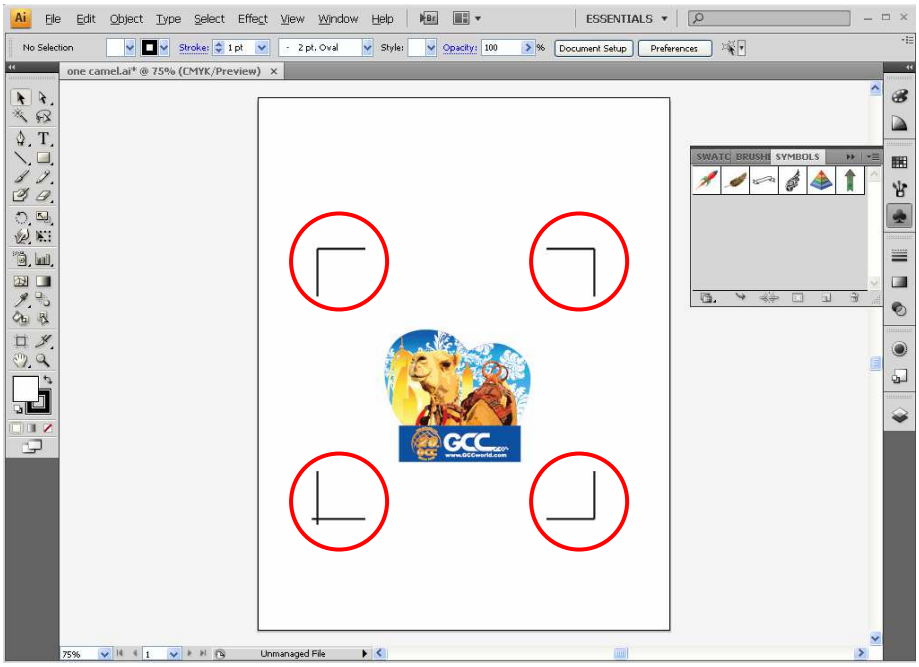
4-Point Positioning



4-Point Positioning

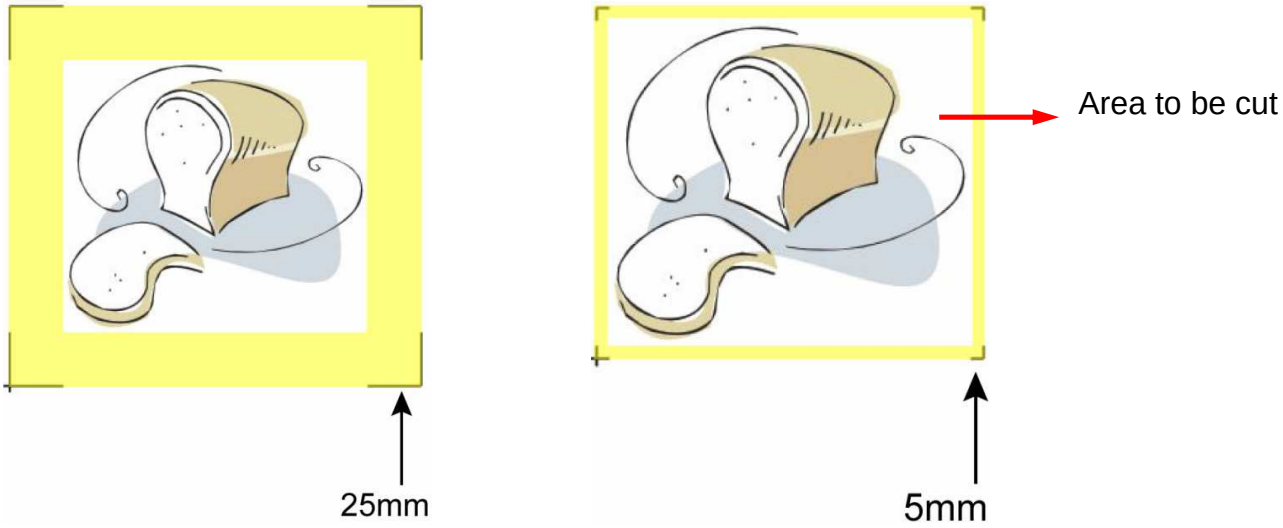
- Length: The length of marks
  → Range: 5mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm
- Margin: The distance between marks and images
  → Range: 0mm~50mm
  → Optimized Setting: 5mm

The system will create the 4 marks as shown in the picture below.



Note:

1. To save your materials, in addition to amending object margins, you can also adjust the length of the registration marks (5mm minimum) when you apply 4-Point Positioning (see table 1 for suggestions based on different material sizes). The smaller the size is, the smaller the distance between the object and the registration marks is (see the figures below).



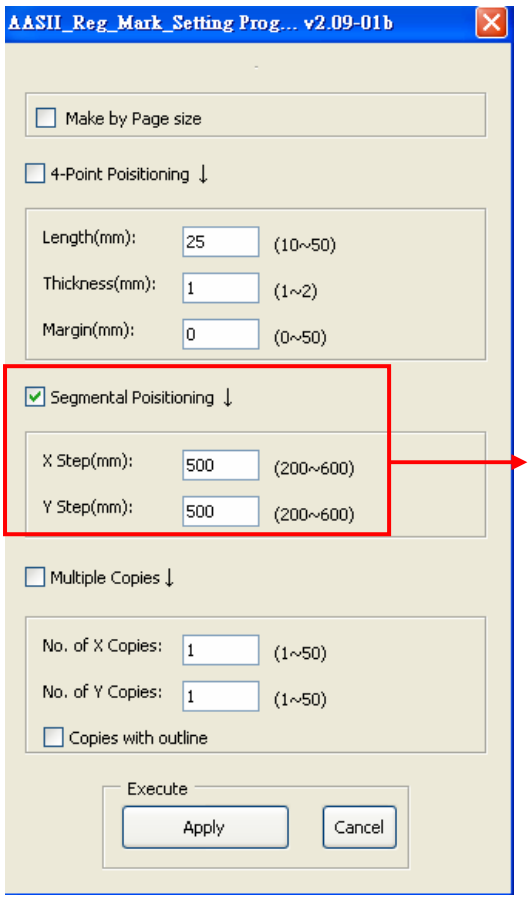
Page size (unit: mm)	Suggested mark length (unit: mm)
A6 (105 x 148)	5
A5 (148 × 210)	8
A4 (210 × 297)	11
A3 (297 × 420)	16
A2 (420 × 594)	23
A1 (594 × 841) and above	25*

Table 1

*25mm is the suggested value for the registration mark length

2. The size of the registration marks would affect the accuracy of registration mark detection so please make sure the amount you enter is reasonable.

Segmental Positioning

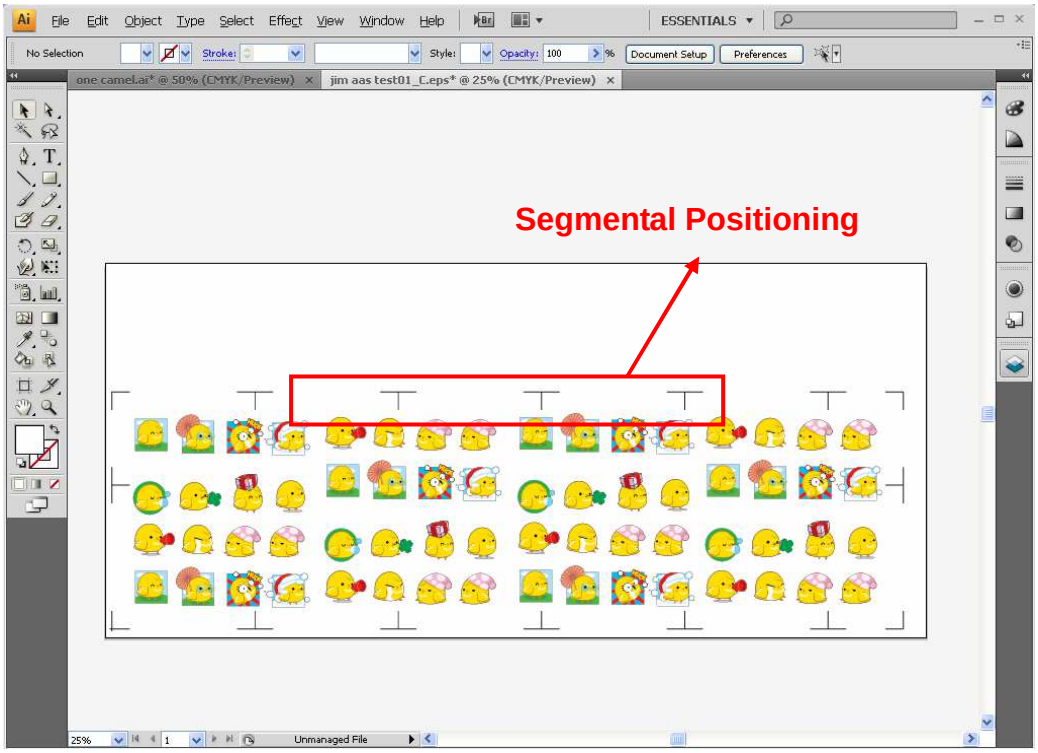


For precise cutting quality, it is suggested to select "Segmental Positioning" when you are working on an extra long or large-sized image to increase cutting accuracy.

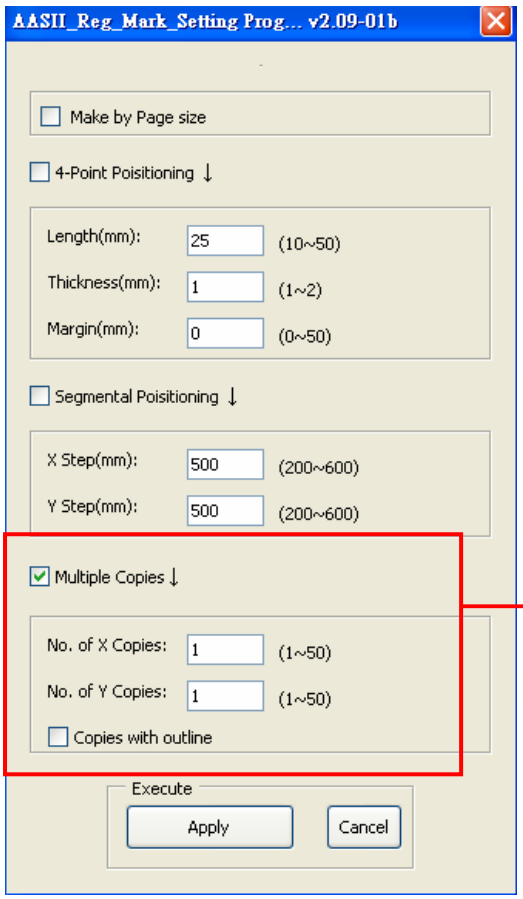
Segmental Positioning

- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

The system will create the marks as shown in the picture below



Multiple Copies

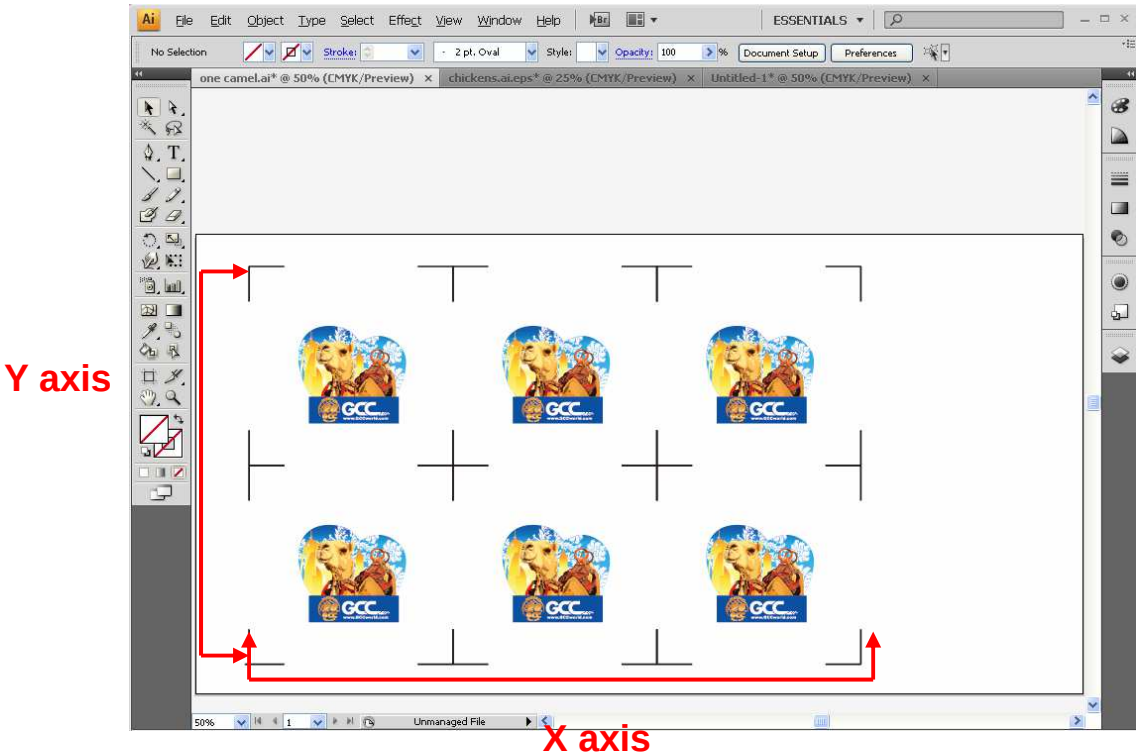


It is suggested to select “Multiple Copies” when you would like to make several copies of one image on your material to increase cutting accuracy.

Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline：To show outlines of image graphics
- Margin: Space between marks; must be 0 or ≧ 20, no negative numbers allowed

The system will create the as shown in the picture below.



DirectCut Instruction

DirectCut Mac AI Plug-in is compatible with MAC OS X 10.4-10.7 (operated with Adobe Illustrator CS2-CS5).

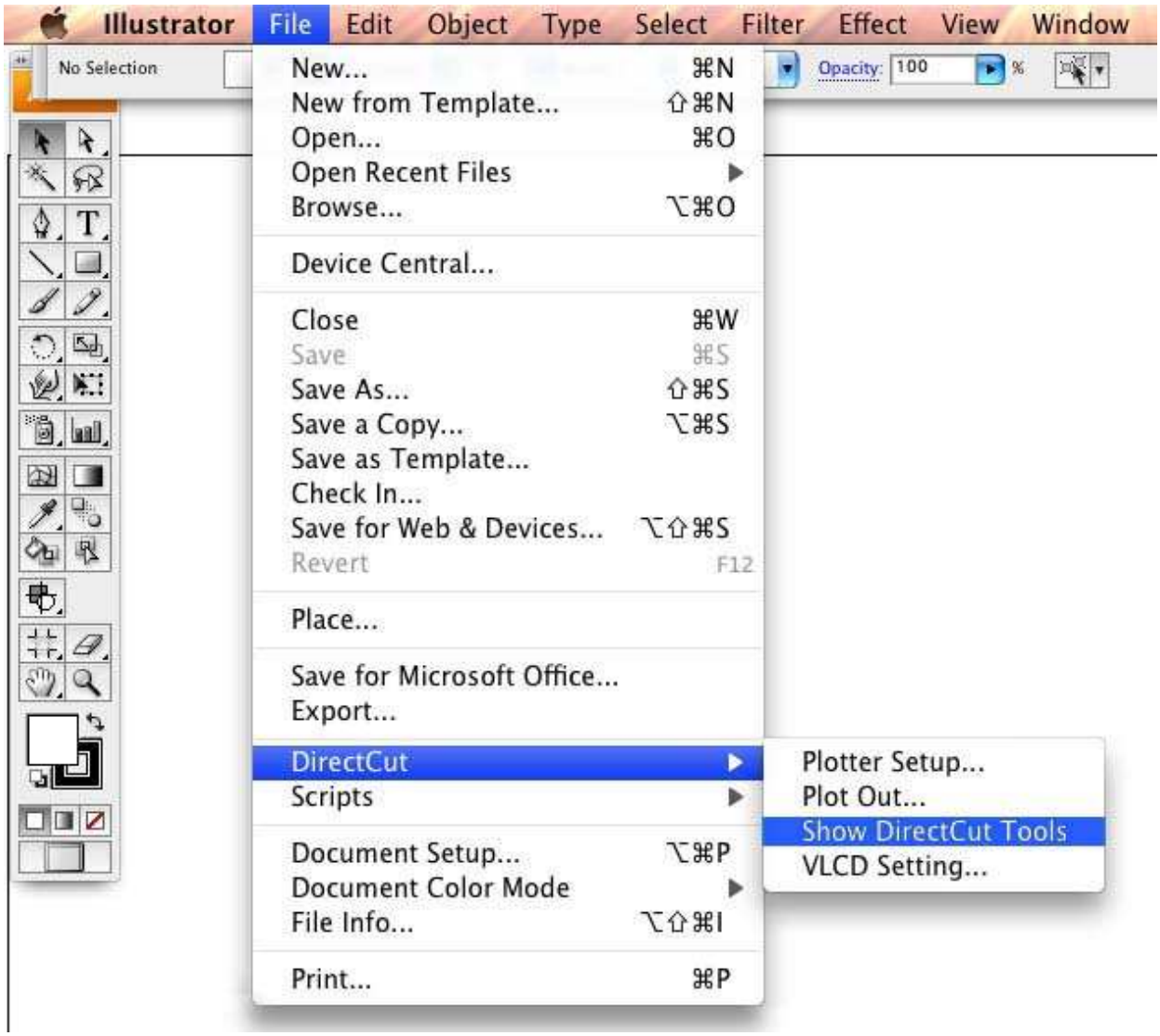
If you want to use Adobe Illustrator CS6 on your MAC, you may need Parallels Desktop software, Window OS and Windows based Adobe Illustrator CS6 to install Windows OS in your MAC computer and run Windows based software under MAC computer.

User Instructions

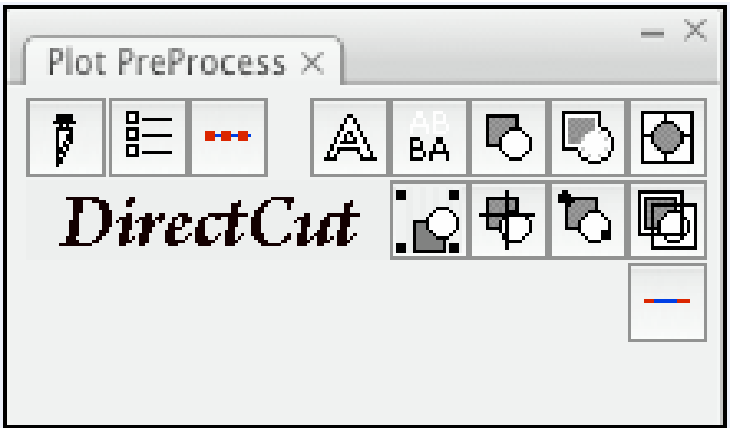
Follow the simple steps below to complete your output settings:

Step 1. Run DirectCut

1) Go to File and select “Show DirectCut Tools” under “DirectCut”



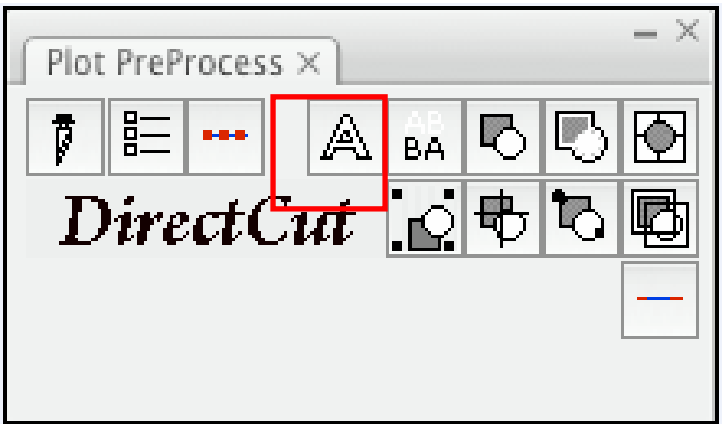
You will be presented with this dialog below:



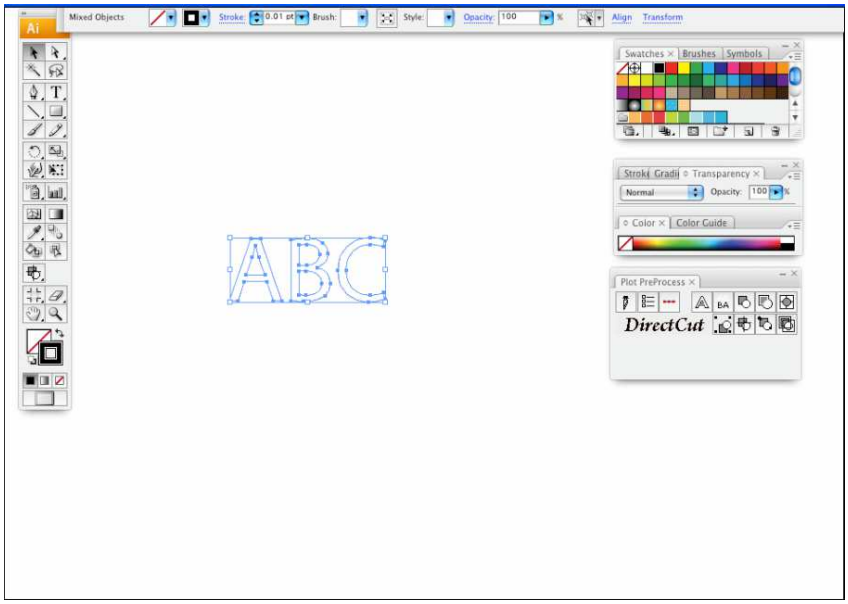
Step 2. Create/ import your image/ file.

For texts

1) Enter your texts in Adobe Illustrator, select the letters and click [Text outline] to outline the letters.



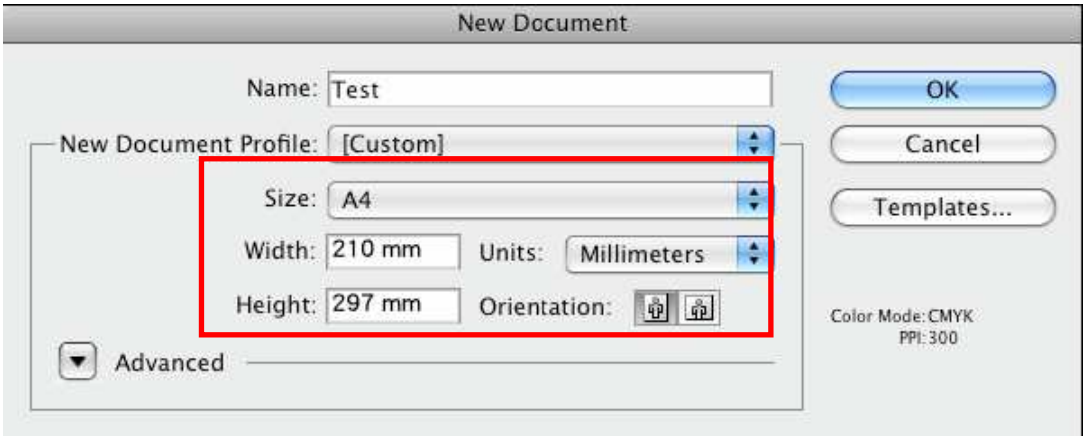
A contour line will be created for your image.



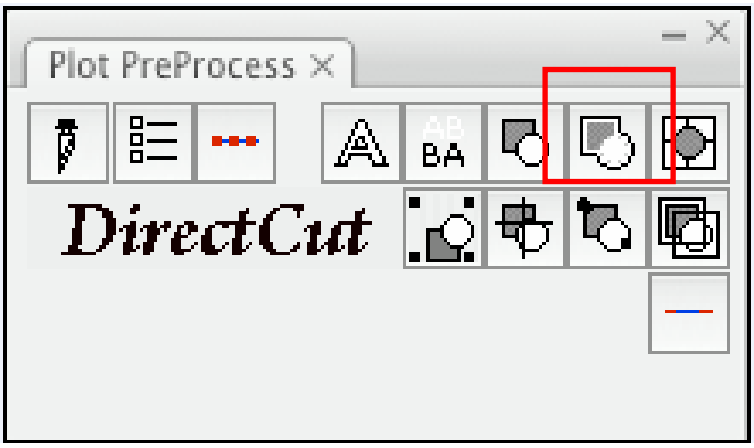
Note: The line width must be set as 0.001 mm

For Images

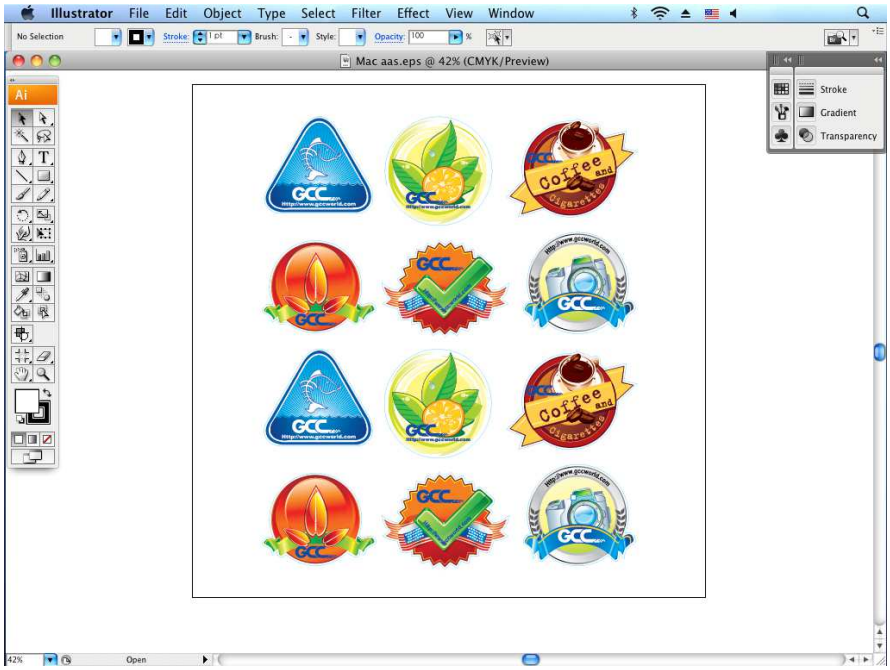
1) Open a new image on Illustrator and decide the size of your material.



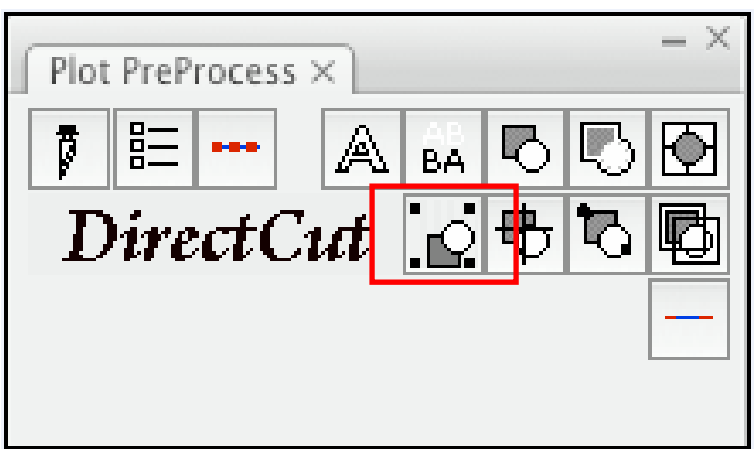
2) Select the image and click [Make outline and offset] to create outlines of graphics.

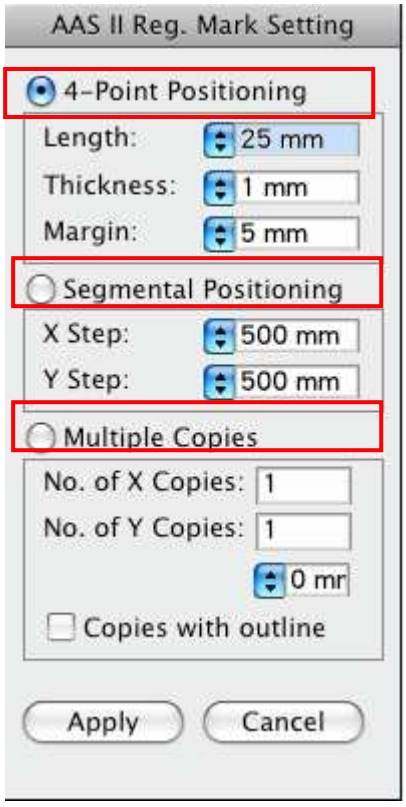


Outlines will be created for your image.

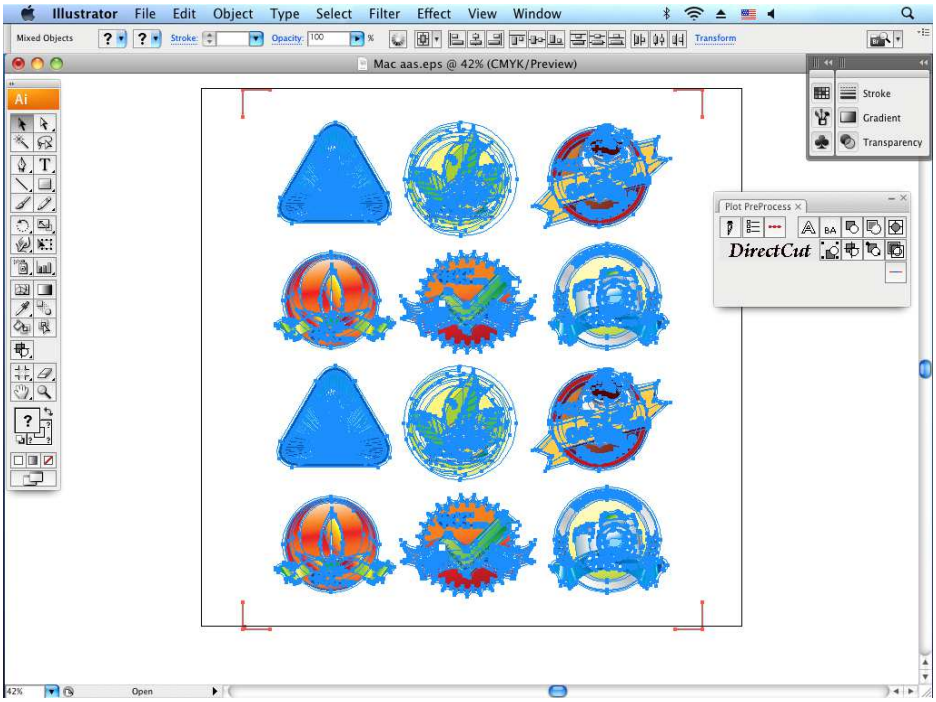


3) Click on the image and apply the AAS function by clicking the [Add registration marks] command and select the registration marks needed.



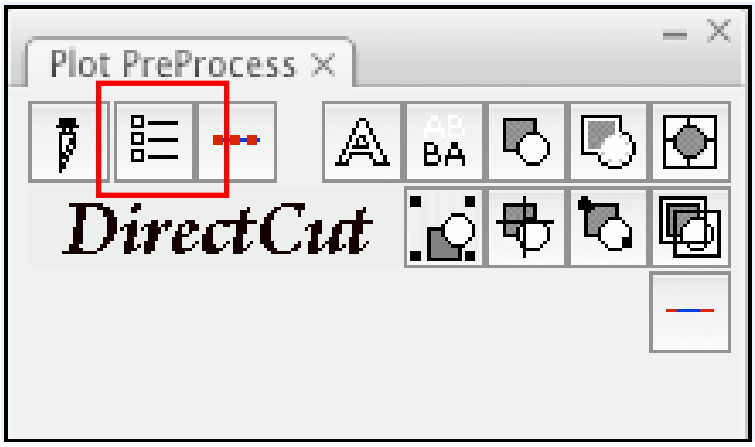


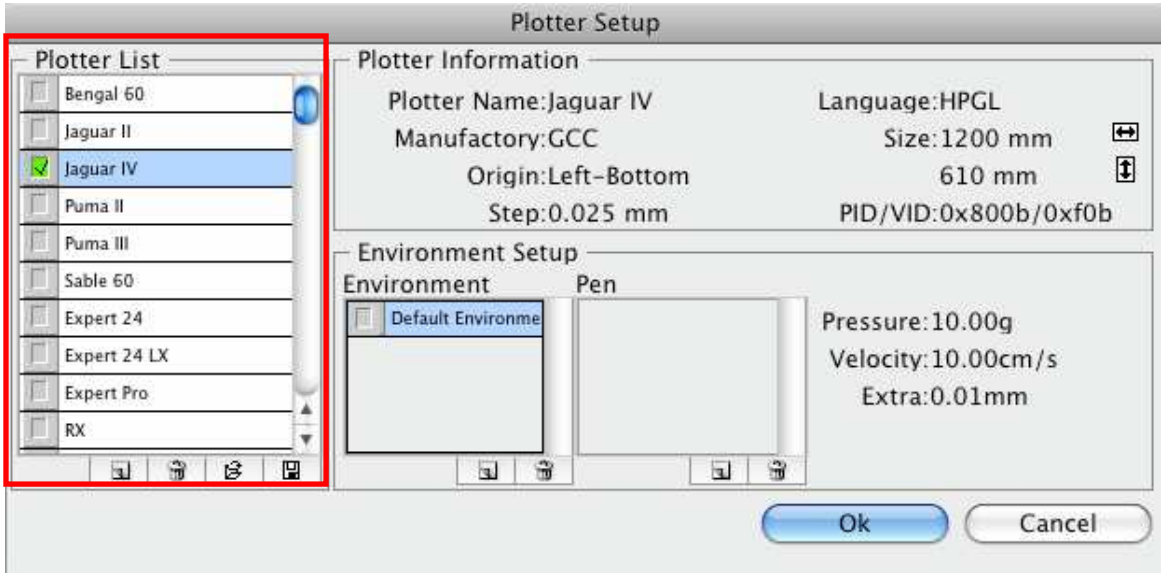
The registration marks will be created as below.



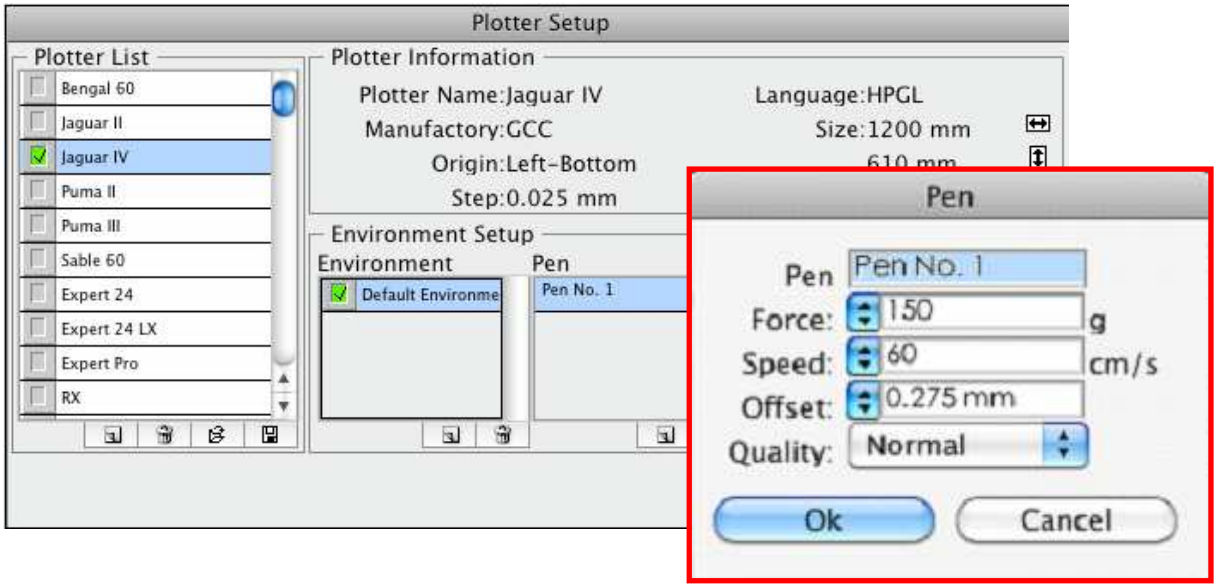
Step 3. Output

1) Click on [Plotter Setup] and select the correct model in [Plotter List].

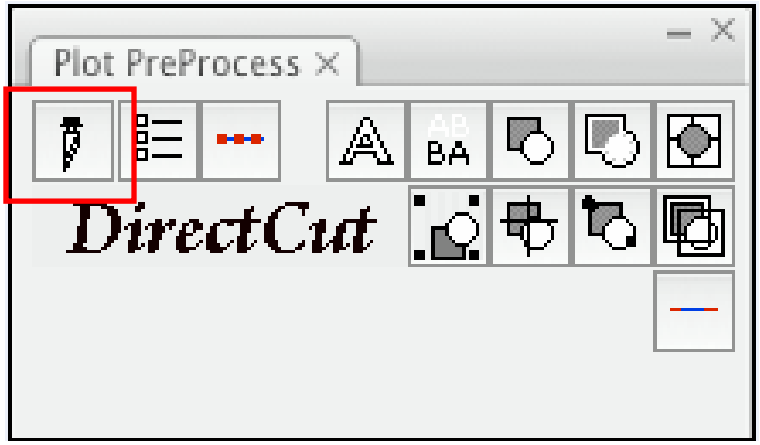




2) Tick Default Environment to create Pen No.1 in the Pen section. Double click Pen No.1 and complete your parameter settings.



3) Select the entire object and click [Plotter Output].



4) Output the object by clicking [Export] and GCC Cutting Plotter will start cutting the image.